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FILE 'MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

=> s antimicrom? or antibacter?  
L1 153627 ANTIMICROB? OR ANTIBACTER?

=> s 11 and phosphor?

=> s 11 and phosphorous  
L3 54 L1 AND PHOSPHOROUS

=> s 13 and phosphor?/ti  
T-4 13 L3 AND PHOSPHOR?/TI

=> d t i 1-13

L4 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS  
TI Sustained-release preparation of hinokitiol metal salts containing acidic phosphorus compounds

L4 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2003 ACS  
TI Synergistic compositions for controlling plant pathogens comprising metal ions, chelating agents, and phosphorous acid

14 ANSWER 3 OF 13 CAPIUS COPYRIGHT 2003 ACS

- TI Antibacterial nonwoven fabrics with lasting  
antibacterial properties and good heat resistance comprising  
.epsilon.-caprolactone copolyester binder fibers containing  
**phosphorous** acid ester compounds
- L4 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Antibacterial conjugate binder fibers with good retention of  
antibacterial properties during processing steps comprising a  
polyester core and a polyolefin sheath and containing **phosphorous**  
acid esters
- L4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Antibacterial stuffings with good washfastness of  
antibacterial properties comprising polyester fibers containing  
**phosphorous** acid ester compounds and beddings therefrom
- L4 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Fire-resistant **antibacterial** fibers comprising thermoplastic  
polymers containing **phosphorous** and containing triazine compound  
salts with cyanuric acid or isocyanuric acid and **phosphorous**  
acid esters
- L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Phosphorous** organic compounds and their use
- L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Preparation and **antimicrobial** activity of a chitosan derivative  
containing **phosphoryl** groups
- L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Sterilizing **phosphorous**-free washing powder and its prodn.  
method
- L4 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Antimicrobial** nylon prepared in water with zinc compound and  
**phosphorus** compound
- L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Synthesis of some phosphites from cyclic **phosphorous** acid  
chlorides
- L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Synthesis of phosphites from the acid chlorides of cyclic esters of  
**phosphorous** acid and a study of them as fuel additives
- L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Mitomycin C derivatives containing **phosphorous**

=> d ibib abs 1-13 it

L4 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2003:239789 CAPLUS  
DOCUMENT NUMBER: 138:250152  
TITLE: Sustained-release preparation of hinokitiol metal  
salts containing acidic **phosphorus** compounds  
INVENTOR(S): Nagashima, Takeshi; Yuma, Toshifumi; Takahashi,  
Hitoshi; Sakota, Naokazu  
PATENT ASSIGNEE(S): Kanae Paint Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003089606	A2	20030328	JP 2002-48009	20020225

PRIORITY APPLN. INFO.: JP 2001-211874 A 20010712

AB The sustained-release preps. of hinokitiol (I) metal salts, useful as bactericides, fungicide,s food freshness-keeping agents, etc., contain acidic P compds. to control volatility of I. A mixt. of 50 mg magnesium hinokitiol and 150 mg tris(nonylphenyl)phosphite showed good antibacterial effect over 1 mo. Similar preps. using tobermorite, wollastonite, or talc as carriers were also prepd.

IT Food additives

(freshness-keeping agents; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT Antibacterial agents

Fungicides

(industrial; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT Pesticide formulations

(sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT Phosphines

Phosphites

RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT 1319-31-9, Tobermorite 13983-17-0, Wollastonite 14807-96-6, Talc, biological studies

RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(carrier; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT 499-44-5D, Hinokitiol, metal salts 7439-95-4D, Magnesium, complexes with hinokitiol 7440-50-8D, Copper, complexes with hinokitiol 7440-70-2D, Calcium, complexes with hinokitiol

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT 603-35-0, Triphenylphosphine, biological studies 10343-62-1, Metaphosphoric acid 13598-36-2, **Phosphorous** acid, biological studies

RL: BSU (Biological study, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

IT 3806-34-6, Cyclic neopantanetetrailbis(octadecyl phosphite) 7664-38-2, Orthophosphoric acid, biological studies 26523-78-4, Tris(nonylphenyl) phosphite 502849-97-0

RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)

L4 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:594599 CAPLUS

DOCUMENT NUMBER: 137:121062

TITLE: Synergistic compositions for controlling plant  
 pathogens comprising metal ions, chelating agents, and  
**phosphorous acid**  
 INVENTOR(S): Lifshitz, Ran  
 PATENT ASSIGNEE(S): Agricare Ltd., Israel  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002060248	A2	20020808	WO 2002-IL78	20020128
WO 2002060248	A3	20030320		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002160054	A1	20021031	US 2002-58108	20020129

PRIORITY APPLN. INFO.: US 2001-264285P P 20010129

AB A compn. for controlling growth of pathol. organisms on a plant, said compn. comprises an effective amt. of one or more of metal ion(s); one or more of chelating agent(s); and **phosphorous acid**, and/or salt or hydrate thereof, said compn. is in an agriculturally compatible carrier or vehicle.

IT Fulvic acids

RL: MOA (Modifier or additive use); USES (Uses)  
 (acidifying agent in synergistic compns. for controlling plant pathogens)

IT Carboxylic acids, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (hydroxy; chelating agent in synergistic compns. for controlling plant pathogens)

IT Metals, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (ions; synergistic compns. for controlling plant pathogens comprising)

IT Bacteria (Eubacteria)

(phytopathogenic; synergistic compns. comprising metal ions, chelating agents, and **phosphorous acid** for controlling)

IT Carboxylic acids, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (polycarboxylic, amino; chelating agent in synergistic compns. for controlling plant pathogens)

IT Albugo

Bremia

Erwinia

Peronospora

Phytopathogenic fungi

Phytophthora

Pseudomonas

Pseudoperonospora

Pythium  
 Rhizoctonia  
 Xanthomonas  
     (synergistic compns. comprising metal ions, chelating agents, and phosphorous acid for controlling)

IT Chelating agents  
     (synergistic compns. for controlling plant pathogens comprising)

IT Antibacterial agents  
 Fungicides  
     (synergistic compns. for controlling plant pathogens comprising metal ions, chelating agents, and phosphorous acid)

IT Antimicrobial agents  
     (synergistic; synergistic compns. for controlling plant pathogens comprising metal ions, chelating agents, and phosphorous acid)

IT 7664-93-9, Sulfuric acid, uses 8062-15-5, Lignosulfonate  
 RL: MOA (Modifier or additive use); USES (Uses)  
     (acidifying agent in synergistic compns. for controlling plant pathogens)

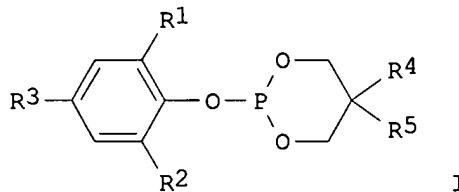
IT 56-40-6, Glycine, biological studies 60-00-4, EDTA, biological studies  
 67-43-6, DTPA 77-92-9, biological studies 87-73-0, D-Glucaric acid  
 150-39-0, HEDTA 526-95-4, D-Gluconic acid 1170-02-1, EDDHA  
 23351-51-1, D-gluco-Heptonic acid, 2.xi.-  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
     (Biological study); USES (Uses)  
     (chelating agent in synergistic compns. for controlling plant pathogens)

IT 1314-13-2, Zinc oxide, biological studies 7439-89-6D, Iron, ion,  
 biological studies 7439-96-5D, Manganese, ion, biological studies  
 7758-99-8, Copper sulfate pentahydrate 14127-61-8, Calcium, ion,  
 biological studies 15158-11-9, biological studies 22537-23-1,  
 Aluminum, ion, biological studies 23713-49-7, Zinc, ion, biological  
     studies  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
     (Biological study); USES (Uses)  
     (synergistic compns. for controlling plant pathogens comprising)

IT 13492-26-7, Phosphorous acid, dipotassium salt 13598-36-2,  
 Phosphorous acid, biological studies 13708-85-5, Phosphonic  
 acid, disodium salt 13933-52-3, Phosphonic acid, monopotassium salt  
 13977-65-6, Phosphonic acid, monopotassium salt  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
     (Biological study); USES (Uses)  
     (synergistic compns. for controlling plant pathogens contg.)

L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:869766 CAPLUS  
 DOCUMENT NUMBER: 134:43356  
 TITLE: Antibacterial nonwoven fabrics with lasting  
     antibacterial properties and good heat  
     resistance comprising .epsilon.-caprolactone  
     copolyester binder fibers containing  
     phosphorous acid ester compounds  
 INVENTOR(S): Aranaga, Tomoyuki; Isota, Hideo; Hayashibara, Mikiya;  
     Yoshino, Kenji  
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345455	A2	20001212	JP 1999-156431	19990603
PRIORITY APPLN. INFO.:			JP 1999-156431	19990603
OTHER SOURCE(S):		MARPAT 134:43356		
GI				



- AB** The nonwoven fabrics comprise fibers (A) consisting of .epsilon.-caprolactone copolymers with m.p.  $\geq 100^\circ\text{C}$ . and contg. 0.05-10% bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite as the sheath and PET as the core were together melt spun at  $280^\circ\text{C}$ . and 1:1 wt. ratio to form a tow, drawn at  $60^\circ\text{C}$ . to draw ratio 2.9, heat-treated at roll temp.  $120^\circ\text{C}$ ., crimped, and cut to give binder fibers. A 20:80 blend comprising the spun fibers and hollow PET fibers was made into a carded web, laminated, needle-punched, and heat-treated 5 min at  $170^\circ\text{C}$ . to give a nonwoven fabric with thickness 20 mm and exhibiting compressive bulk retention 90% initially and 84% after 6 h at  $70^\circ\text{C}$ . and showing resistance to bacteria (log B-log C;  $\geq 2.2$  good; *Staphylococcus aureus*) 3.8 initially and 50 washings.
- IT** Polyamide fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (6, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT** **Antibacterial agents**  
 Binders  
 Nonwoven fabrics  
 (**antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT** Polyester fibers, uses  
 Synthetic polymeric fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (**antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg.)

**phosphorous acid ester compds.)**

IT Filters  
(**antibacterial** nonwoven fabrics with lasting  
**antibacterial** properties and good heat resistance comprising  
.epsilon.-caprolactone copolyester binder fibers contg.  
**phosphorous acid ester compds.** for)

IT Household furnishings  
(bedding, mats; **antibacterial** nonwoven fabrics with lasting  
**antibacterial** properties and good heat resistance comprising  
.epsilon.-caprolactone copolyester binder fibers contg.  
**phosphorous acid ester compds.** for)

IT Cotton fibers  
Wool  
(blends with polyester binder fibers; **antibacterial** nonwoven  
fabrics with lasting **antibacterial** properties and good heat  
resistance comprising .epsilon.-caprolactone copolyester binder fibers  
contg. **phosphorous acid ester compds.**)

IT Acrylic fibers, uses  
Polyamide fibers, uses  
Polypropene fibers, uses  
Rayon, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(blends with polyester binder fibers; **antibacterial** nonwoven  
fabrics with lasting **antibacterial** properties and good heat  
resistance comprising .epsilon.-caprolactone copolyester binder fibers  
contg. **phosphorous acid ester compds.**)

IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(butanediol-caprolactone-ethylene glycol-terephthalic acid;  
**antibacterial** nonwoven fabrics with lasting  
**antibacterial** properties and good heat resistance comprising  
.epsilon.-caprolactone copolyester binder fibers contg.  
**phosphorous acid ester compds.**)

IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(butanediol-caprolactone-terephthalic acid, block, bicomponent with PET  
fibers; **antibacterial** nonwoven fabrics with lasting  
**antibacterial** properties and good heat resistance comprising  
.epsilon.-caprolactone copolyester binder fibers contg.  
**phosphorous acid ester compds.**)

IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with copolyester sheath; **antibacterial**  
nonwoven fabrics with lasting **antibacterial** properties and  
good heat resistance comprising .epsilon.-caprolactone copolyester  
binder fibers contg. **phosphorous acid ester compds.**)

IT Polyamides, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
(Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, blends with polyester binder fibers; **antibacterial**  
nonwoven fabrics with lasting **antibacterial** properties and  
good heat resistance comprising .epsilon.-caprolactone copolyester  
binder fibers contg. **phosphorous acid ester compds.**)

IT Wood  
(fibers, blends with polyester binder fibers; **antibacterial**  
nonwoven fabrics with lasting **antibacterial** properties and  
good heat resistance comprising .epsilon.-caprolactone copolyester  
binder fibers contg. **phosphorous acid ester compds.**)

- IT Automobiles  
(interior parts; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.** for)
- IT Textiles  
(linen, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT Clothing  
(linings; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.** for)
- IT Clothing  
(shoulder pads; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.** for)
- IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(bactericide; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT 175719-44-5, 1,4-Butanediol-.epsilon.-caprolactone-ethylene glycol-terephthalic acid copolymer  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with PET core; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT 107592-10-9, 1,4-Butanediol-.epsilon.-caprolactone-terephthalic acid block copolymer  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with PET core; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT 25038-59-9, Poly(ethylene terephthalate), uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with copolyester sheath; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)
- IT 25038-54-4, Nylon 6, uses 25085-53-4, Isotactic polypropylene  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous acid ester compds.**)

L4 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:869763 CAPLUS

DOCUMENT NUMBER: 134:43329

TITLE:

**Antibacterial conjugate binder fibers with good retention of antibacterial properties during processing steps comprising a polyester core and a polyolefin sheath and containing phosphorous acid esters**

INVENTOR(S): Aranaga, Tomoyuki; Isoda, Hideo; Hayashibara, Mikiya;

Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

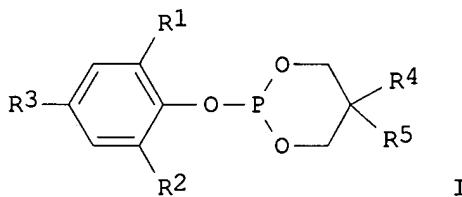
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345434	A2	20001212	JP 1999-161075	19990608
PRIORITY APPLN. INFO.:			JP 1999-161075	19990608
OTHER SOURCE(S):	MARPAT 134:43329			
GI				



AB The binder fibers consist of a core comprising polyesters (A) with m.p. .gtoreq.150.degree. and a sheath comprising polyolefins (B) with m.p. smaller than the m.p. of A with .gtoreq.20.degree. difference between the m.p. of A and m.p. of B and contain 0.05-10% .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3 R6C6H2OP(CH2O)2]. The fibers are useful for nonwoven fabrics for hygienic materials (no data). PET extrudate as the core and an extrudate contg. polyethylene (II) and bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite (III) as the sheath were together melt spun at PET-II wt. ratio 50:50, cooled, wound, drawn, crimped, and cut to give binder fibers contg. 0.05% III. A carded web of the fibers was prep'd., needlepunched, and heat-treated to give a nonwoven fabric exhibiting bacteria resistance value (log B-log C; *Staphylococcus aureus*) 3.0.

IT **Antibacterial agents**

Binders

Nonwoven fabrics

(antibacterial conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. phosphorous acid esters with good retention of antibacterial properties during processing steps)

IT **Polyolefin fibers**

- Polypropene fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(bicomponent with polyester fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(butanediol-terephthalic acid, bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(ethylene glycol-naphthalenedicarboxylic acid, bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Polyolefin fibers  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(ethylene, bicomponent with polyester fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Polyesters, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with polyolefin sheath; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT Medical goods  
(hygienic materials; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(bactericide; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)
- IT 9002-88-4, Polyethylene 25085-53-4, Isotactic polypropylene  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with polyester core; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT 9020-73-9, Poly(ethylene naphthalate) 24968-11-4, Poly(ethylene naphthalate) 24968-12-5, Poly(butylene terephthalate) 25038-59-9, Poly(ethylene terephthalate), uses 26062-94-2, Poly(butylene terephthalate)

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (fiber, bicomponent with polyolefin sheath; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

L4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:865546 CAPLUS

DOCUMENT NUMBER: 134:43326

TITLE: **Antibacterial** stuffings with good washfastness of **antibacterial** properties comprising polyester fibers containing **phosphorous** acid ester compounds and beddings therefrom

INVENTOR(S): Aranaga, Tomoyuki; Isota, Hideo; Hayashibara, Mikiya; Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

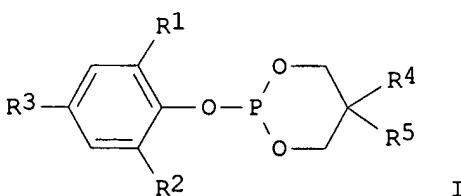
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345432	A2	20001212	JP 1999-157423	19990604
PRIORITY APPLN. INFO.:			JP 1999-157423	19990604
OTHER SOURCE(S):		MARPAT 134:43326		

GI



AB The stuffings are prep'd. by melt spinning polymers comprising polyester compns. contg. 0.05-10% .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3R6C6H2OP(CH2O)2]. A compn. comprising poly(ethylene terephthalate) and 0.5% bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite was melt spun, quenched by air, drawn to draw ratio 2.8 at 70.degree., crimped, cut, and heat-treated at 140-150.degree. to give stuffing materials exhibiting bacteria resistance value (log B-log C; *Staphylococcus aureus*) 5.6 initially and 5.3 after 50 washings.

IT   **Antibacterial agents**  
       (antibacterial stuffings with good washfastness of  
       antibacterial properties comprising polyester fibers contg.  
       phosphorous acid ester compds. and beddings therefrom)

IT   **Polyester fibers, uses**  
       RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
          (Technical or engineered material use); PROC (Process); USES (Uses)  
       (antibacterial stuffings with good washfastness of  
       antibacterial properties comprising polyester fibers contg.  
       phosphorous acid ester compds. and beddings therefrom)

IT   **Household furnishings**  
       (bedding; antibacterial stuffings with good washfastness of  
       antibacterial properties comprising polyester fibers contg.  
       phosphorous acid ester compds. and beddings therefrom)

IT   **Polyesters, uses**  
       RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
          formulation); PRP (Properties); TEM (Technical or engineered material  
          use); PROC (Process); USES (Uses)  
       (fiber; antibacterial stuffings with good washfastness of  
       antibacterial properties comprising polyester fibers contg.  
       phosphorous acid ester compds. and beddings therefrom)

IT   64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
       80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol  
       diphosphite  
       RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
          study, unclassified); MOA (Modifier or additive use); BIOL (Biological  
          study); USES (Uses)  
       (bactericide; antibacterial stuffings with good washfastness  
       of antibacterial properties comprising polyester fibers  
       contg. phosphorous acid ester compds. and beddings therefrom)

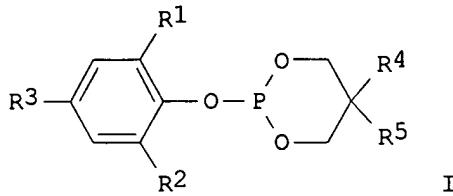
IT   25038-59-9, Poly(ethylene terephthalate), uses  
       RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
          formulation); PRP (Properties); TEM (Technical or engineered material  
          use); PROC (Process); USES (Uses)  
       (fiber; antibacterial stuffings with good washfastness of  
       antibacterial properties comprising polyester fibers contg.  
       phosphorous acid ester compds. and beddings therefrom)

L4   ANSWER 6 OF 13   CAPLUS   COPYRIGHT 2003 ACS

ACCESSION NUMBER:   2000:865545   CAPLUS  
 DOCUMENT NUMBER:   134:43325  
 TITLE:              Fire-resistant antibacterial fibers  
                     comprising thermoplastic polymers containing  
                     phosphorous and containing triazine compound  
                     salts with cyanuric acid or isocyanuric acid and  
                     phosphorous acid esters  
 INVENTOR(S):       Aranaga, Tomoyuki; Isoda, Hideo; Hayashibara, Mikiya;  
                     Yoshino, Kenji  
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
 SOURCE:             Jpn. Kokai Tokkyo Koho, 12 pp.  
 DOCUMENT TYPE:     Patent  
 LANGUAGE:           Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345427	A2	20001212	JP 1999-161074	19990608
PRIORITY APPLN. INFO.:			JP 1999-161074	19990608
OTHER SOURCE(S):		MARPAT 134:43325		

GI



- AB The fibers are prep'd. by melt spinning compns. comprising (A) thermoplastic polymers contg. P, (B) 1-10 parts triazine compd. salts with cyanuric acid or isocyanuric acid per 100 part A, (C) 0-1000 parts thermoplastic polymers per 100 parts A, and (D) 0.05-10 parts .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3 R6C6H2OP(CH2O)2] per 100 parts sum of wt. of A and C. Di-Me terephthalate was polycondensed with ethylene glycol and 2-hydroxyethyl 3-(phenylphosphinyl)propionate (II) to give a copolyester (III) contg. 8.0 mol% II units. A compn. contg. III 100, melamine cyanurate 8, and bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite 0.05 part was pelletized, melt spun, and made into a knit to give a fabric exhibiting limiting oxygen index 31.0 and UL94 rating V-1 and showing bacteria resistance value (log B-log C; *Staphylococcus aureus*) 3.8 initially and 2.4 after 50 washings.
- IT Polyester fibers, uses  
 Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (butanediol-di-Me terephthalate-hydroxyethyl  
 (methylphosphinyl)propionate; fire-resistant **antibacterial**  
 fibers comprising thermoplastic polymers contg. **phosphorous**  
 and contg. triazine compd. salts with cyanuric acid or isocyanuric acid  
 and **phosphorous** acid esters)
- IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (di-Me terephthalate-ethylene glycol-hydroxyethyl  
 (phenylphosphinyl)propionate; fire-resistant **antibacterial**  
 fibers comprising thermoplastic polymers contg. **phosphorous**  
 and contg. triazine compd. salts with cyanuric acid or isocyanuric acid  
 and **phosphorous** acid esters)
- IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fabrics; fire-resistant **antibacterial** fibers comprising  
 thermoplastic polymers contg. **phosphorous** and contg. triazine  
 compd. salts with cyanuric acid or isocyanuric acid and  
**phosphorous** acid esters)
- IT Polymer blends  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber; fire-resistant **antibacterial** fibers comprising  
 thermoplastic polymers contg. **phosphorous** and contg. triazine  
 compd. salts with cyanuric acid or isocyanuric acid and  
**phosphorous** acid esters)
- IT **Antibacterial agents**

Fire-resistant materials  
 Fireproofing agents  
     (fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT Polyester fibers, uses  
 Synthetic polymeric fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
     (fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
 80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
     (bactericide; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 24968-12-5, Poly(butylene terephthalate)    26062-94-2, Poly(butylene terephthalate)  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
     (blends with P-contg. polyesters, fiber; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 219571-16-1P  288629-93-6P  288629-94-7P  312612-05-8P  
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
     (fiber; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 167092-99-1P  312612-04-7P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
     (fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 37640-57-6, Melamine cyanurate  
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
     (fireproofing agent; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:68466 CAPLUS

DOCUMENT NUMBER: 132:108102

TITLE: **Phosphorous** organic compounds and their use

INVENTOR(S): Jomaa, Hassan

PATENT ASSIGNEE(S): Germany

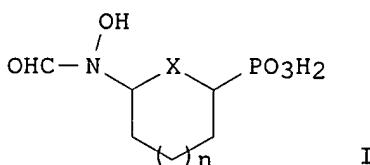
SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000004031	A1	20000127	WO 1999-EP4827	19990709
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19831639	C1	20000511	DE 1998-19831639	19980715
DE 19843360	A1	20000330	DE 1998-19843360	19980922
CA 2336143	AA	20000127	CA 1999-2336143	19990709
AU 9951580	A1	20000207	AU 1999-51580	19990709
AU 754165	B2	20021107		
BR 9912062	A	20010403	BR 1999-12062	19990709
EP 1095050	A1	20010502	EP 1999-936505	19990709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
EE 200100027	A	20020617	EE 2001-27	19990709
JP 2002520419	T2	20020709	JP 2000-560137	19990709
NO 2001000200	A	20010314	NO 2001-200	20010112
US 2003036533	A1	20030220	US 2002-241346	20020911
US 2003045746	A1	20030306	US 2002-241413	20020911
PRIORITY APPLN. INFO.:			DE 1998-19831639 A	19980715
			DE 1998-19843360 A	19980922
			WO 1999-EP4827 W	19990709
			US 2001-743979 A3	20010302

OTHER SOURCE(S): MARPAT 132:108102

GI



AB Approx. 6 bactericidal, fungicidal and herbicidal title compds. I (X = CH<sub>2</sub>, N, O; n = 0, 1) were prep'd. by std. methods in several steps.

IT Antibacterial agents

Fungicides

Herbicides

(formylhydroxyamino cyclic phosphonates)

IT 109-99-9, reactions 111-30-8, Glutaraldehyde 122-52-1, Triethyl phosphite 625-36-5, 3-Chloropropionyl chloride 762-04-9, Diethyl phosphite 930-30-3, 2-Cyclopenten-1-one 930-68-7, 2-Cyclohexen-1-one 1462-33-5, 1-Chloro-2-chloromethoxyethane 1490-25-1, Methyl 3-chlorocarbonylpropionate 13086-84-5, Di-tert-butyl phosphite 255705-24-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of formylhydroxyamino cyclic phosphonates)

IT 4312-87-2P 6161-33-7P 7750-01-8P 21865-73-6P 67492-98-2P  
77526-75-1P 77526-80-8P 81746-58-9P 116384-56-6P 160713-48-4P  
160713-49-5P 255705-04-5P 255705-05-6P 255705-06-7P 255705-08-9P  
255705-09-0P 255705-10-3P 255705-12-5P 255705-13-6P 255705-14-7P  
255705-17-0P 255705-18-1P 255705-19-2P 255705-20-5P 255705-23-8P  
255705-25-0P 255705-26-1P 255705-27-2P 255705-29-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. of formylhydroxyamino cyclic phosphonates)

IT 255705-07-8P 255705-11-4P 255705-15-8P 255705-16-9P 255705-21-6P  
255705-22-7P 255705-28-3P 255705-30-7P 255705-31-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of formylhydroxyamino cyclic phosphonates)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:371785 CAPLUS

DOCUMENT NUMBER: 129:29302

TITLE: Preparation and antimicrobial activity of a chitosan derivative containing phosphoryl groups

AUTHOR(S): Baba, Y.; Nomoto, M.; Shiromori, K.; Kawano, Y.

CORPORATE SOURCE: Dep. Materials Science, Miyazaki Univ., Miyazaki, 889-2155, Japan

SOURCE: Kichin, Kitosan Kenkyu (1998), 4(2), 146-147

CODEN: KKKEFB; ISSN: 1340-9778

PUBLISHER: Nippon Kichin, Kitosan Gakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB N-Phosphonomethylchitosan (PHMC) was synthesized to examine the antimicrobial activity against Escherichia coli (E.coli) and Staphylococcus aureus (St.aureus). The antimicrobial activity was evaluated by measuring the decrease in the no. of viable cells in the bacteria suspension after contacting with the resin for given time. PHMC exhibited a high antibacterial activity for both bacteria. The antimicrobial mechanism was presumed to be electrostatic interaction between the surface of resin and bacteria.

IT Escherichia coli

Staphylococcus aureus  
(prepn. and antimicrobial activity of chitosan deriv. contg. phosphoryl groups)

IT Polymer morphology  
(prepn., morphol., and antimicrobial activity of chitosan deriv. contg. phosphoryl groups)

IT 50-00-0, Formaldehyde, reactions 9012-76-4, Chitosan 13598-36-2,  
Phosphorous acid, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(in prepn. of chitosan deriv. contg. phosphoryl groups)

IT 9012-76-4DP, Chitosan, N-phosphonomethyl derivs.  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn. and antimicrobial activity of chitosan deriv. contg. phosphoryl groups)

L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:168394 CAPLUS

DOCUMENT NUMBER: 126:159037

TITLE: Sterilizing phosphorous-free washing powder and its prodn. method

INVENTOR(S): Tang, Jimeng; Zheng, Jinding  
 PATENT ASSIGNEE(S): Tang, Jimeng, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 9 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1110987	A	19951101	CN 1994-104517	19940427
CN 1045990	B	19991027		

PRIORITY APPLN. INFO.: CN 1994-104517 19940427  
 AB Detergents contain nonionic surfactants such as polyethylene glycol nonylphenyl ether and optionally ethoxylated alcs. 8-15, Na polyacrylate 0.8-1.2, Na carbonate 10-30, chlorhexidine 0.2-2, Na bicarbonate 5-15, H<sub>2</sub>O 4-6, Na metasilicate pentahydrate 5-20, Na sulfate 20-50%, and perfume.  
 IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkyl ethers, surfactants; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT Antibacterial agents  
 (chlorhexidine; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT Surfactants  
 (nonionic; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT Detergents  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT 55-56-1, Chlorhexidine  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bactericides; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT 139-33-3, EDTA disodium salt 9003-04-7, Sodium polyacrylate 9004-32-4  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT 144-55-8, Sodium bicarbonate, uses 497-19-8, Sodium carbonate, uses 6834-92-0, Sodium metasilicate 7757-82-6, Sodium sulfate, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)  
 IT 9016-45-9, Tx 10 25322-68-3D, alkyl ethers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (surfactants; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

L4 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1988:57497 CAPLUS  
 DOCUMENT NUMBER: 108:57497  
 TITLE: **Antimicrobial** nylon prepared in water with zinc compound and **phosphorus** compound  
 INVENTOR(S): Osborn, Scott E.; Farrugia, Vincent J.; Plischke, LeMoine W.; Wu, Chester C.  
 PATENT ASSIGNEE(S): Monsanto Co., USA  
 SOURCE: U.S., 3 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4701518	A	19871020	US 1986-860942	19860508
PRIORITY APPLN. INFO.:			US 1986-860942	19860508

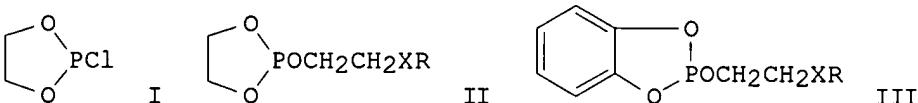
AB **Antimicrobial** activity is imparted to nylon during its prepn. by adding to the monomers a Zn compd. and a P compd. in amts. sufficient to form reaction products contg. .gtoreq. 300 ppm Zn (based on the theor. wt. of nylon prepd.). Benzenephosphinic acid (390 ppm P) and Zn(NH<sub>4</sub>CO<sub>3</sub>)<sub>2</sub> (500 ppm Zn) were added to an aq. hexamethylenediammonium adipate salt soln. used to prep. nylon 66 yarns. A carpet prepd. from this nylon 66 showed 88 .+- . 5% redn. of bacteria colonies after dyeing.

IT Carpets  
 (manuf. of, **antimicrobial** nylon fibers for)

IT Polyamide fibers, preparation  
 RL: PREP (Preparation)  
 (prepn. of **antimicrobial**, contg. zinc and phosphorus compds.)

IT 557-34-6D, Zinc acetate, reaction products with phosphorus compds.  
 1314-13-2D, Zinc oxide, reaction products with phosphorus compds.  
 1779-48-2D, Benzene phosphinic acid, reaction products with zinc compds.  
 13598-36-2D, reaction products with zinc compds. 24012-08-6D, Zinc ammonium carbonate, reaction products with phosphorus compds.  
 112526-46-2D, reaction products with phosphorus compds.  
 RL: USES (Uses)  
 (in prepn. of **antimicrobial** nylon)

L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1976:523487 CAPLUS  
 DOCUMENT NUMBER: 85:123487  
 TITLE: Synthesis of some phosphites from cyclic phosphorous acid chlorides  
 AUTHOR(S): Aliev, Z. E.; Guseinov, K. Z.; Aliev, S. A.  
 CORPORATE SOURCE: Inst. Khim. Prisadok, Baku, USSR  
 SOURCE: Azerbaidzhanskii Khimicheskii Zhurnal (1976), (1), 56-8  
 CODEN: AZKZAU; ISSN: 0005-2531  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI



AB Reaction of the acid chloride I with HOCH<sub>2</sub>CH<sub>2</sub>XR (XR = OEt, OPh, SC<sub>5</sub>H<sub>11</sub>, SC<sub>6</sub>H<sub>13</sub>, SPh) gave 67-83% corresponding II. Benzo derivs. III (RX = EtO, C<sub>5</sub>H<sub>11</sub>S) were prepd. in 75, and 83% yields, resp., similarly. II and III have **antimicrobial** activity (no data).

IT Bactericides, Disinfectants and Antiseptics  
 (cyclic phosphites)

IT 58402-88-3P    58402-89-4P    58402-91-8P    60469-78-5P    60469-79-6P  
 60469-80-9P    60469-81-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

IT 822-39-9    1641-40-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
     (reaction of, with ethanol derivs.)  
 IT 110-80-5 122-99-6 699-12-7 22812-91-5 24475-56-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (reaction of, with ethylene chlorophosphite)

L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1976:92466 CAPLUS  
 DOCUMENT NUMBER: 84:92466  
 TITLE: Synthesis of phosphites from the acid chlorides of cyclic esters of phosphorous acid and a study of them as fuel additives  
 AUTHOR(S): Aliev, Z. E.; Guseinov, K. Z.; Aliev, S. A.; Polovoi, Yu. N.; Litvinenko, S. N.  
 CORPORATE SOURCE: USSR  
 SOURCE: Azarbaycan Neft Tasarrufati (1975), (8), 51-3  
 CODEN: AZNKAY; ISSN: 0365-8554  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 AB Ethylene chlorophosphite (I) [822-39-9] and pyrocatechol chlorophosphite [1641-40-3] reacted with alkoxy (or aryloxy)ethanols and [alkyl (or aryl)thio]ethanols in the presence of Et<sub>3</sub>N in C<sub>6</sub>H<sub>6</sub>. I reacted with Ba naphthenate and alkylphenoxyethanol in C<sub>6</sub>H<sub>6</sub> soln. to obtain antiscaling and antimicrobial additives for fuels. The most efficient antiscaling additives for gas-turbine fuel were acyl ethylene phosphites. Ethoxyethyl ethylene phosphite and (phenylthio)ethylene ethylene phosphite (0.1-0.3%) completely inhibited the growth of microorganisms in the fuel.  
 IT Bactericides, Disinfectants and Antiseptics  
     (cyclic ethylene phosphites, for jet fuels)  
 IT Fuels, rocket  
     (jet, phosphite additives for)  
 IT Fatty acids, esters  
 RL: USES (Uses)  
     (phosphites, deposit inhibitors and microbicides, for jet fuels)  
 IT 1,3,2-Dioxaphospholane, 2-(2-phenoxyethoxy)-, alkyl derivs.  
 1,3,2-Dioxaphospholane, 2-hydroxy-, O-acyl derivs.  
 RL: USES (Uses)  
     (deposit inhibitors and microbicides, for jet fuels)  
 IT 58402-88-3 58402-89-4  
 RL: USES (Uses)  
     (deposit inhibitors and microbicides, for jet fuels)  
 IT 822-39-9 1641-40-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (esterification by, of ethanol derivs.)

L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1969:512905 CAPLUS  
 DOCUMENT NUMBER: 71:112905  
 TITLE: Mitomycin C derivatives containing phosphorous  
 PATENT ASSIGNEE(S): Kyowa Fermentation Industry Co., Ltd.  
 SOURCE: Fr. M., 6 pp.  
 CODEN: FMXXAJ  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 5223		19670814	FR	19660211

AB The title compds. with antitumor and antibacterial activities were prepd. by treating ethanolamine with POCl<sub>3</sub> in the presence of Et<sub>3</sub>N in

dioxane or tetrahydrofuran at .apprx.0.degree., followed by dropwise addn. of a soln. mitomycin (I) in dioxane or tetrahydrofuran to the reaction mixt. Thus, to a soln. of 1 part POCl<sub>3</sub> in 20 parts dioxane, a soln. of 0.1 part ethanalamine and 6 parts triethanolamine in 20 parts dioxane was added during 10 min., a soln. of 1 part I in 0.2 part dioxane added at 20-30.degree. during 1 hr., the reaction mixt. passed through silica gel columns, washed with Me<sub>2</sub>CO, and eluted with 1:1 MeOH-EtOAc, the solid obtained dissolved in 50-100 parts HCONMe<sub>2</sub>, Et<sub>3</sub>N.HCl sepd. by filtration, the filtrate treated with Et<sub>2</sub>O, the resulting ppt. dissolved in MeOH, passed through a silica gel column, developed by EtOAc contg. 5% MeOH, and eluted by EtOAc contg. increasing MeOH till 30%, and the solid obtained chromatographed on silica gel column to give 2 very hygroscopic noncryst. reddish brown compds. (II) and (III). II and III had LD<sub>50</sub> >100 mg./kg. (mouse), and were effective for curing otorhinopharyngolaryngologic, gastric, liver, and pancreatic cancers.

- IT Neoplasm inhibitors  
     (mitomycin C phosphorus-contg. derivs.)  
 IT Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl-, carbamate (ester), phosphorus-contg. derivs.  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
     (prepn. of)

=> file stnguid			
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	50.73	51.15	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	-8.46	-8.46	

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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: May 9, 2003 (20030509/UP).

=> file reg			
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION	
FULL ESTIMATED COST	0.54	51.69	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	0.00	-8.46	

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STRUCTURE FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3  
 DICTIONARY FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

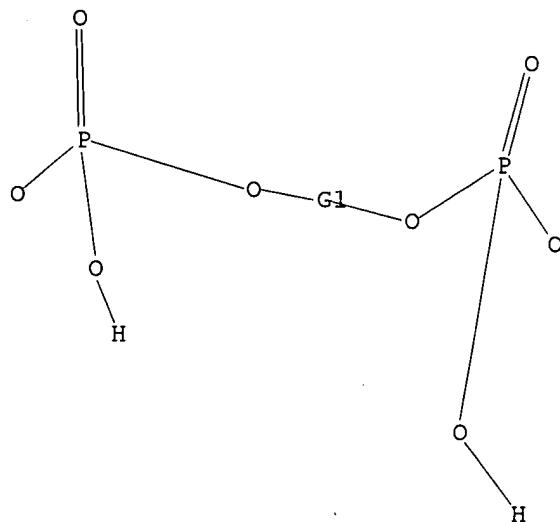
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L5 STRUCTURE UPLOADED

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=>  
Uploading krishnan1.str
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## L6 STRUCTURE UPLOADED

=> d  
L6 HAS NO ANSWERS  
L6 STR



G1 Cb,Ak

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 15:49:55 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 3161 TO ITERATE
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31.6% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00 00 01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 59849 TO 66591

PROJECTED ANSWERS: 2518 TO 4056

L7 50 SEA SSS SAM L6

=> s 16 full  
FULL SEARCH INITIATED 15:50:05 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 64679 TO ITERATE

100.0% PROCESSED 64679 ITERATIONS 3173 ANSWERS  
SEARCH TIME: 00.00.06

L8 3173 SEA SSS FUL L6

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 148.55 200.24  
  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL  
ENTRY SESSION  
CA SUBSCRIBER PRICE 0.00 -8.46

FILE 'CAPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 13 May 2003 VOL 138 ISS 20  
FILE LAST UPDATED: 12 May 2003 (20030512/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 18 and ( antimicrob? or antibacter?)  
20295 L8  
47693 ANTIMICROB?  
65443 ANTIBACTER?  
L9 67 L8 AND ( ANTIMICROB? OR ANTIBACTER?)

=> d ti 1-67

L9 ANSWER 1 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Antimicrobial deodorant for domestic environment  
  
L9 ANSWER 2 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Antimicrobial agents for laver farming  
  
L9 ANSWER 3 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Sterilization of foods, microbicides for foods containing chelating agents, surfactants, organic acids, and their salts, and sterilized frozen

foods

- L9 ANSWER 4 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Dentifrice compositions containing **antimicrobial** enzymes
- L9 ANSWER 5 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Conjugates of polysaccharide polymers of natural origin
- L9 ANSWER 6 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Increased Staphylococcus-killing activity of an **antimicrobial** peptide, lactoferricin B, with minocycline and monoacylglycerol
- L9 ANSWER 7 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Products for topical applications comprising oil bodies
- L9 ANSWER 8 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic composition containing 7-hydroxy dhea and/or 7-keto dhea and at least an **antimicrobial** agent
- L9 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic composition comprising a sapogenin and an **antibacterial** agent
- L9 ANSWER 10 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Protonated **antimicrobial** compounds
- L9 ANSWER 11 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic and pharmaceutical compositions containing chelating and sequestering agents
- L9 ANSWER 12 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic emulsions containing hemoglobin and myoglobin as oxygen carriers for the natural regeneration of skin in case of oxygen deficiency
- L9 ANSWER 13 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Oral compositions providing improved cleaning of teeth based on silica
- L9 ANSWER 14 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Improved injectable dispersions of propofol
- L9 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Antitubulin assembly and cell growth inhibitor denominated "dioxostatin"
- L9 ANSWER 16 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Structure of diphosphocytidyl methylerythritol synthetase involved in mevalonate-independent isoprenoid biosynthesis and the rational design of effectors
- L9 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Synthesis of hydroxyphenstatin and the prodrugs thereof as anticancer and **antimicrobial** agents
- L9 ANSWER 18 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI **Antibacterial** phosphoinositides for oral use against *Haemophilus influenzae*
- L9 ANSWER 19 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Disinfectant compositions for machinery used in food processing
- L9 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Preparation and use of a drug composition containing local anesthetics, anti-inflammatory agent and/or immunostimulant

- L9 ANSWER 21 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Compositions for efficient release of skin active ingredients from oleaginous carriers
- L9 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Oral compositions comprising tea polyphenol
- L9 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Acidic carbohydrate preservatives and application
- L9 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Rufomycin derivatives useful as antibiotics
- L9 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Absorbent article having a skin care composition
- L9 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Article having a transferable breathable skin care composition thereon
- L9 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Synergistic food preservatives containing glucose enzymic oxidation products
- L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Food preservatives containing fructose enzymic oxidation products and preservation of food
- L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Synergistic food preservatives containing galactose enzymic oxidation products
- L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic and/or dermatological composition in the form of an oil-in-water emulsion formed by lipid vesicles dispersed in an aqueous phase containing at least one active hydrophilic acid
- L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Antineoplastic Agents 440. Asymmetric Synthesis and Evaluation of the Combretastatin A-1 SAR Probes (1S,2S)- and (1R,2R)-1,2-Dihydroxy-1-(2',3'-dihydroxy-4'-methoxyphenyl)-2-(3'',4'',5''-trimethoxyphenyl)-ethane
- L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Compositions for sustained release of a **antimicrobial** gas
- L9 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Dentifrices containing noncationic **antibacterials** for removal of tongue coating
- L9 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Tear grass-derived **antibacterial** agent and process for producing the same
- L9 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI **Antimicrobial** agents containing rice bran components for fish and Crustacea
- L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Oxazolidinone derivatives, process for their preparation and pharmaceutical compositions containing them as antibiotics

- L9 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Lathering surfactants in cleansing compositions for skin and/or hair which also deposits skin care actives
- L9 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products with improved moisturization
- L9 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Granular deodorant and **antibacterial** composition and its production
- L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Method of processing and preserving collagen based tissues
- L9 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Anticaries mouthwashes containing shellac
- L9 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI **Antibacterial** treatment solutions, manufacture of ceramics, and **antibacterial** ceramic products
- L9 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Chitosan-containing antimildew aqueous coatings
- L9 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing and conditioning article for skin or hair comprising surfactants and lipids
- L9 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing and conditioning products for skin or hair with improved deposition of conditioning ingredients
- L9 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Bioactive secondary metabolites from plants. Protective effects in healthy nutrition
- L9 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Additive-transfer coated films suitable for cook-in packaging of foods
- L9 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Anticalculus dentifrice compositions containing phytates and noncationic bactericides
- L9 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Inhibiting undesirable taste in oral compositions
- L9 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products
- L9 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products
- L9 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products
- L9 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products
- L9 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Food preservatives
- L9 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Algicides and bactericides containing lactic acid and method of cultivation of laver with them

L9 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Method of making an amine containing biocidal composition

L9 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Algicides and microbicides containing methanesulfonic acid for cultured laver

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Preparation of copper, tin, and zinc salts of saccharide derivatives for personal care products.

L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Susceptibility of rice spikelets to infection with *Pseudomonas glumae* and its population dynamics

L9 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Evidence that generations of inositol 1,4,5-trisphosphate and hydrolysis of phosphatidylinositol 4,5-bisphosphate are rapid responses following addition of fungal elicitor which induces phytoalexin synthesis in lucerne (*Medicago Sativa*) suspension culture cells

L9 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Antiplaque and anticalculus oral compositions containing phytates and **antimicrobial** compounds

L9 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Antiplaque oral compositions for suppressing mouth odors

L9 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Food preservatives containing  $\epsilon$ -polylysine with improved **antibacterial** activity

L9 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Combined effects of various food additives on the bactericidal activity of ethanol against *Escherichia coli* and *Staphylococcus aureus*

L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Phosphorus-31 and carbon-13 nuclear magnetic resonance studies of anaerobic glucose metabolism and lactate transport in *Staphylococcus aureus* cells

L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Experimental candidiasis in rabbits: protective action of fructose-1,6-diphosphate

L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI **Antimicrobial** action of sulfurous acid. V. The action of sulfurous acid on the metabolism of respiring and fermenting yeast and *Escherichia coli* cells

=> d ibib abs hitstr 9

L9 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2002:387796 CAPLUS  
DOCUMENT NUMBER: 136:374521  
TITLE: Cosmetic composition comprising a sapogenin and an **antibacterial** agent  
INVENTOR(S): Picard, Elisabeth

PATENT ASSIGNEE(S): L'Oreal, Fr.  
 SOURCE: Fr. Demande, 14 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2813019	A1	20020222	FR 2000-10806	20000822
PRIORITY APPLN. INFO.:			FR 2000-10806	20000822

**AB** Cosmetic compns. comprising a saponin and an **antibacterial** agent are used for the prevention or the treatment of skin disorders such as acne and greasy skin. A cosmetic gel contained acrylate-C10-30 alkyl acrylate 0.5, hexyldecanol 10, isononyl isononanoate 10, diosgenin 0.3, salicylic acid 2.5, triethanolamine 4, glycerin 6, preservatives 0.25, and Sepigel-305 0.5%.

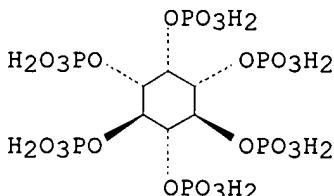
**IT 83-86-3, Phytic acid**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic compn. comprising saponin and **antibacterial** agent)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



=> d ibib abs hitstr 15

L9 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:832999 CAPLUS  
 DOCUMENT NUMBER: 135:366721  
 TITLE: Antitubulin assembly and cell growth inhibitor denominated "dioxostatin"  
 INVENTOR(S): Pettit, George R.; Lippert, John W., III  
 PATENT ASSIGNEE(S): Arizona Board of Regents, Arizona State University, USA  
 SOURCE: PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

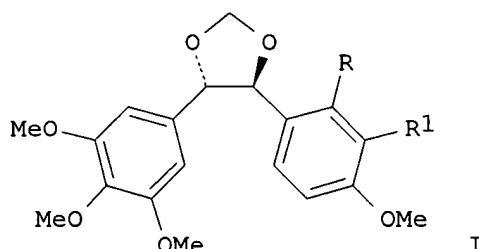
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001084929	A1	20011115	WO 2001-US14790	20010508
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1283672	A1	20030219	EP 2001-935147	20010508

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

PRIORITY APPLN. INFO.:

US 2000-202770P P 20000509  
WO 2001-US14790 W 20010508

GI



AB A new inhibitor of microtubule assembly ( $IC_{50}$  0.59  $\mu M$ ); with antineoplastic properties, denominated "dioxostatin", has been synthesized and its effectiveness against human cancer and murine P388 lymphocytic leukemia cell lines demonstrated. Dioxostatin has the following structure (I).

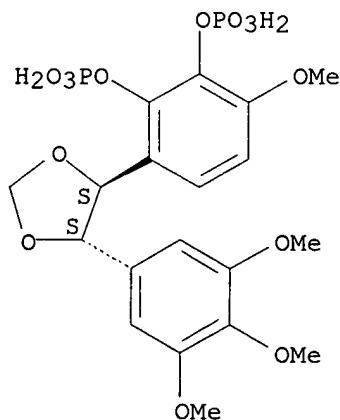
IT 354144-85-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(antitubulin assembly and cell growth inhibitor denominated dioxostatin in relation to antineoplastic and antimicrobial activity)

RN 354144-85-7 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[(4S,5S)-5-(3,4,5-trimethoxyphenyl)-1,3-dioxolan-4-yl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

REFERENCE COUNT:

5

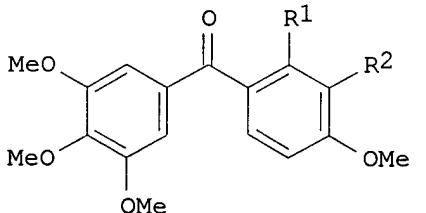
THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 17

L9 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2001:798176 CAPLUS  
DOCUMENT NUMBER: 135:331299  
TITLE: Synthesis of hydroxyphenstatin and the prodrugs thereof as anticancer and antimicrobial agents  
INVENTOR(S): Pettit, George R.; Greathouse, Matthew P.  
PATENT ASSIGNEE(S): Arizona Board of Regents, A Body Corporate of the State of Arizona, Acting for and On Behalf of Arizona State University, USA  
SOURCE: PCT Int. Appl., 40 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081288	A1	20011101	WO 2001-US13731	20010427
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1299337	A1	20030409	EP 2001-930892	20010427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRIORITY APPLN. INFO.:			US 2000-200394P	P 20000427
			WO 2001-US13731	W 20010427

OTHER SOURCE(S): MARPAT 135:331299  
GI

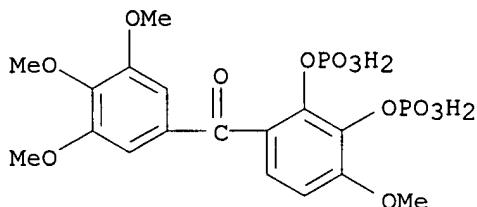


- AB The benzophenone deriv. of combretastatin A-1, designated "hydroxyphenstatin" [I; R1 = R2 = OH] and X-hydroxyphenstatin diphosphate wherein X is selected from Na, Ca, Li and K in a pharmaceutically acceptable carrier, were prepd. for use as anticancer and antimicrobial agents. Thus, I [R1 = R2 = OPO(ONa)2 (II)] was prepd. via a multistep synthetic sequence starting from 3,4,5-trimethoxy benzaldehyde, o-vanillin, dibenzylphosphite and sodium iodide. The prepd. hydroxyphenstatin derivs. were tested for antitumor activity against a series of human cancer cells and murine P388 lymphocytic leukemia, antibacterial and antifungal activities (II GI50 = 0.0336 .mu.g/mL vs P388 cell line; IC50= >40 .mu.M inhibition of tubulin polymn.; I [R1 = R2 = OPO(OCH2Ph)2] MIC = 50-100 .mu.g/dish).  
IT 290347-56-7P, Sodium hydroxyphenstatin diphosphate  
290347-57-8P, Lithium hydroxyphenstatin diphosphate  
290347-59-0P, Potassium hydroxyphenstatin diphosphate  
290347-60-3P, Calcium hydroxyphenstatin diphosphate  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synthesis of hydroxyphenstatin and diphosphate prodrug as anticancer and antimicrobial agents)

RN 290347-56-7 CAPLUS

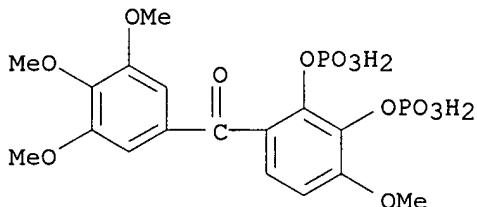
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl](3,4,5-trimethoxyphenyl)-, tetrasodium salt (9CI) (CA INDEX NAME)



●4 Na

RN 290347-57-8 CAPLUS

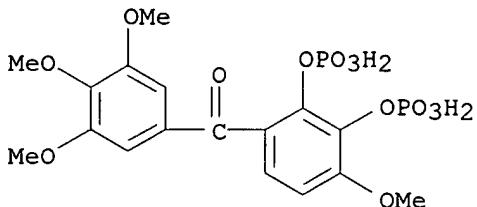
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl](3,4,5-trimethoxyphenyl)-, tetrolithium salt (9CI) (CA INDEX NAME)



●4 Li

RN 290347-59-0 CAPLUS

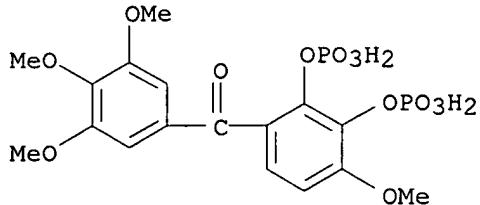
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl](3,4,5-trimethoxyphenyl)-, tetrapotassium salt (9CI) (CA INDEX NAME)



●4 K

RN 290347-60-3 CAPLUS

CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl](3,4,5-trimethoxyphenyl)-, calcium salt (1:2) (9CI) (CA INDEX NAME)



●2 Ca

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 20

L9 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:472466 CAPLUS  
 DOCUMENT NUMBER: 135:97440  
 TITLE: Preparation and use of a drug composition containing local anesthetics, anti-inflammatory agent and/or immunostimulant  
 INVENTOR(S): Kasch, Helmut; Goldschmidt, Carsten  
 PATENT ASSIGNEE(S): ID Pharma G.m.b.H., Germany  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

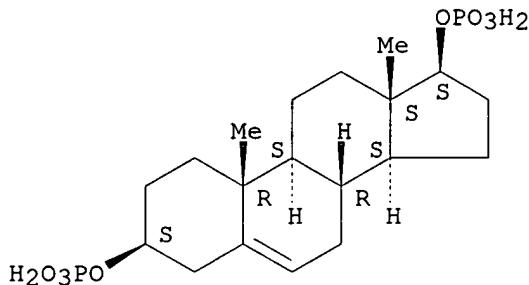
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001045678	A2	20010628	WO 2000-EP13036	20001220
WO 2001045678	A3	20020411		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.: DE 1999-19961834 A 19991221				
OTHER SOURCE(S): MARPAT 135:97440				

AB The invention relates to a compn. which comprises as its constituents (a) a local anesthetic and (b) an anti-inflammatory compd. and/or an immunostimulant compd. and/or a compd. which acts as a supporting material for the local anesthetic. The compns. can be linked via a chem. bond forming carbamates or thiocarbamates. The compns. are use for the treatment of autoimmune diseases, inflammations, neurol. diseases, asthma, age-related diseases etc. Thus PAR 1 was prep'd. by reacting PAR 2 with procaine hydrochloride in methylene chloride for 2 h at room temp. The product was chromatographed on silica gel and identified by ESI-MS. Its was used to screen various microorganisms; PAR 1 inhibited the growth of Penicillium notatum, Glomerella cingulata and Kluyveromyces marxianus.

IT 346706-85-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prepn. and use of a drug compn. contg. local anesthetics,  
 anti-inflammatory agent and/or immunostimulant)  
 RN 346706-85-2 CAPLUS  
 CN Androst-5-ene-3,17-diol, bis(dihydrogen phosphate), (3.beta.,17.beta.)-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



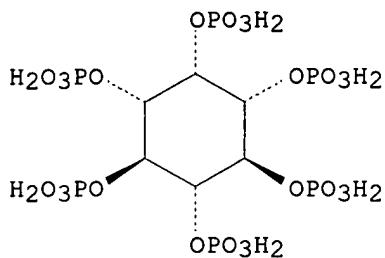
=> d ibib abs hitstr 22

L9 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:185540 CAPLUS  
 DOCUMENT NUMBER: 134:227158  
 TITLE: Oral compositions comprising tea polyphenol  
 INVENTOR(S): Zhu, Long; Ji, Ning  
 PATENT ASSIGNEE(S): Procter & Gamble Co., USA  
 SOURCE: PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017494	A1	20010315	WO 1999-US20607	19990908
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9960302	A1	20010410	AU 1999-60302	19990908
PRIORITY APPLN. INFO.:			WO 1999-US20607	A 19990908
AB	Disclosed are oral compns. comprising: an effective amt. of tea polyphenol; an effective amt. of a buffering agent; from about 40 % to about 99 % of one or more aq. carriers; wherein the oral compn. has a total water content of from about 5 % to about 20 %.			
IT	59246-95-6, Zinc phytate			
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)			
	(oral compns. comprising tea polyphenol)			
RN	59246-95-6 CAPLUS			
CN	myo-Inositol, hexakis(dihydrogen phosphate), zinc salt (9CI) (CA INDEX NAME)			

NAME)

Relative stereochemistry.



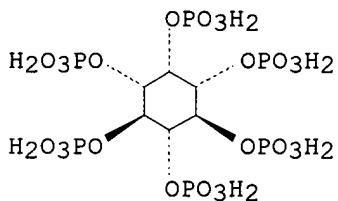
●x Zn

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d hitstr 23-40

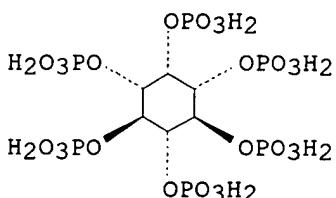
L9 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(acidic carbohydrate preservatives and application)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



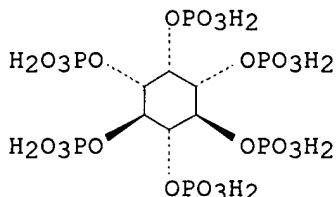
L9 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(rufomycin derivs. useful as antibiotics)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



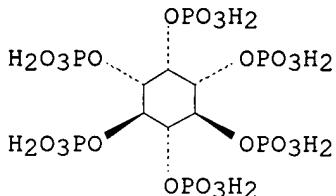
L9 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (absorbent medical articles with disposed skin care compn.)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



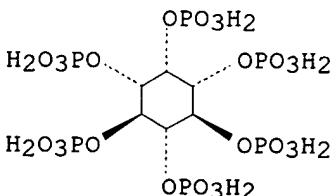
L9 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (articles having transferable breathable skin care compns. contg.)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (synergistic food preservatives contg. glucose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3

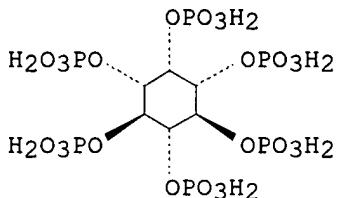
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3

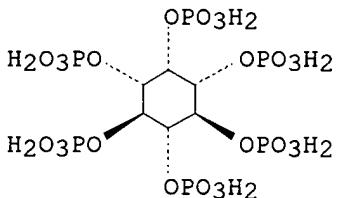
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3, Phytic acid

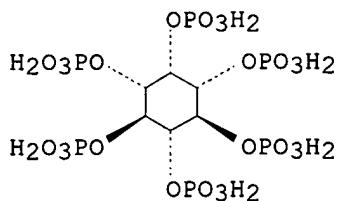
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 288847-34-7 290295-05-5

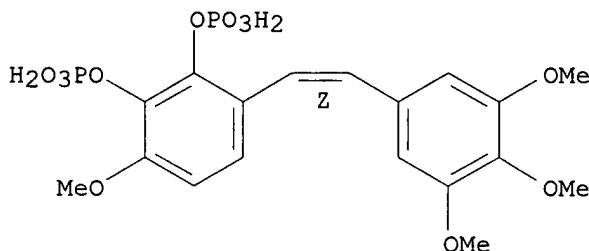
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector; except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(cytotoxicity of, in structure activity relationship study of the combretastatin A1 SAR probes)

RN 288847-34-7 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

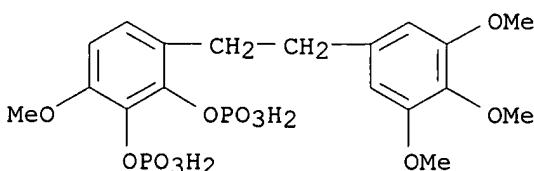
Double bond geometry as shown.



● 4 Na

RN 290295-05-5 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[2-(3,4,5-trimethoxyphenyl)ethyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 196805-61-5P

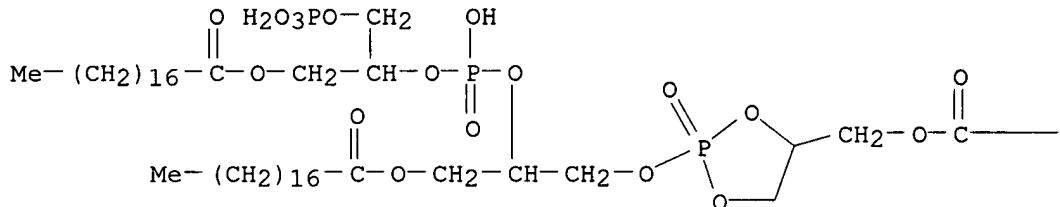
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(compns. for sustained release of an antimicrobial gas)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[[2-oxido-4-[(1-oxooctadecyl)oxy]methyl]-1,3,2-dioxaphospholan-2-yl]oxy]methyl]-9-oxo-2-[(phosphonoxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH<sub>2</sub>)<sub>16</sub>—Me

L9 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2003 ACS

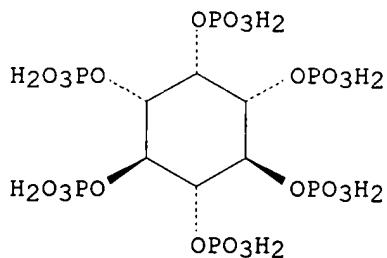
IT 14306-25-3, Sodium phytate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dentifrices contg. noncationic **antibacterials**, phytates, and fatty acid diethanolamides for removal of tongue coating)

RN 14306-25-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), sodium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.



● x Na

L9 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3, Phytic acid

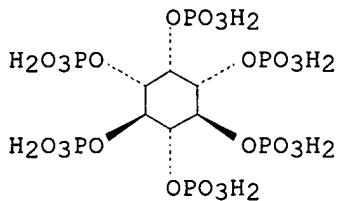
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antibacterial compns. contg. tear grass-derived lipids and other active agents)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3, Phytic acid

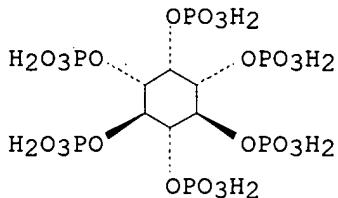
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(antimicrobial agents contg. ferulic acid, phytic acid, inositol, or oryzanol for fish and Crustacea)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 252260-05-2P

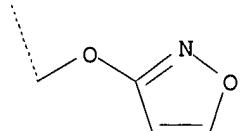
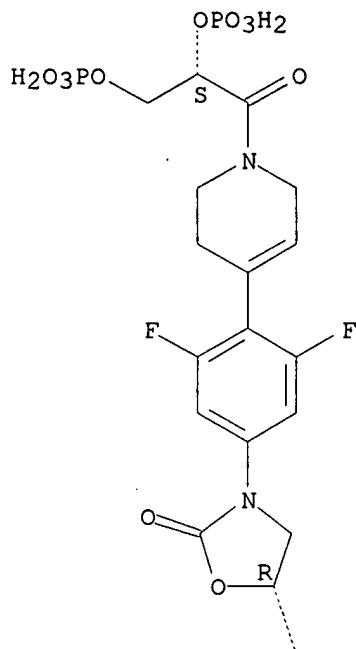
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

RN 252260-05-2 CAPLUS

CN Pyridine, 4-[2,6-difluoro-4-[(5R)-5-[(3-isoxazolyl)oxy]methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonooxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



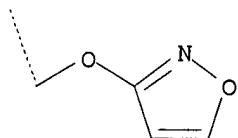
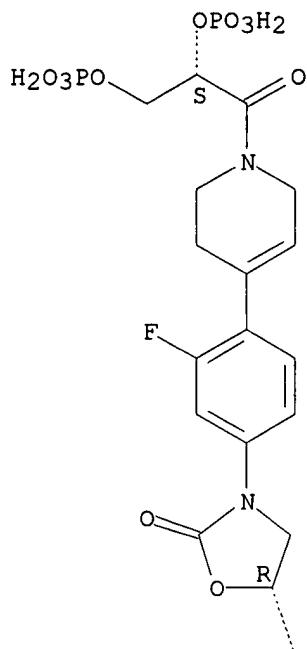
IT 252260-03-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study; unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of antibiotic oxazolidinone derivs.)

RN 252260-03-0 CAPLUS

CN Pyridine, 4-[2-fluoro-4-[(5R)-5-[(3-isoxazolyloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

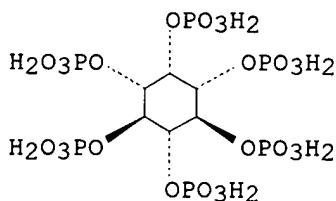
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(cleansing compns. contg. surfactants and polymers for skin and/or hair  
which also deposits skin care actives)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



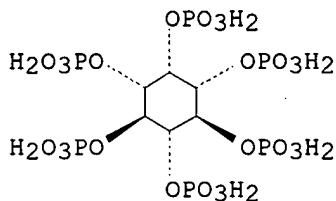
L9 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

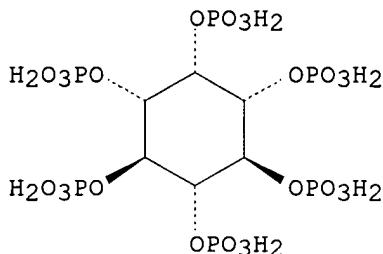
(Uses)  
(cleansing products with improved moisturization)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 56083-79-5, Phyton  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(granular deodorant and antibacterial compn. and prodn.)  
RN 56083-79-5 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate), tin(2+) salt (9CI) (CA INDEX NAME)

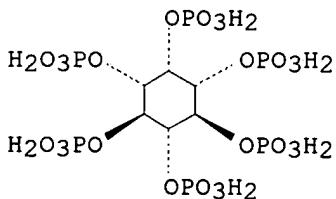
Relative stereochemistry.



●x Sn(II)

L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preservation of collagen based tissues)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

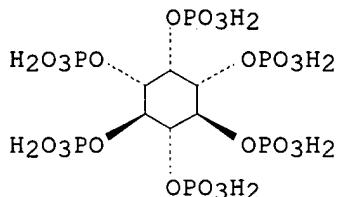
Relative stereochemistry.



=> d hitstr 41-67

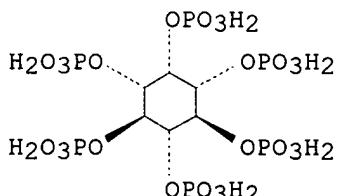
L9 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(anticaries mouthwashes contg. shellac and bactericides and chelating  
agents)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



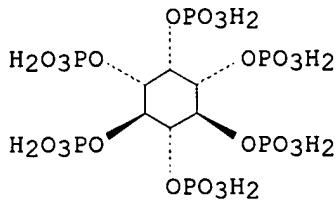
L9 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3DP, Phytic acid, silver complexes  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BUU (Biological use, unclassified); IMF (Industrial  
manufacture); PEP (Physical, engineering or chemical process); TEM  
(Technical or engineered material use); BIOL (Biological study); PREP  
(Preparation); PROC (Process); USES (Uses)  
(antibacterial ceramics manufd. by coating phytic acid silver  
complexes and firing)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



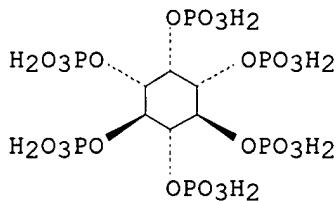
L9 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: MOA (Modifier or additive use); USES (Uses)  
(solubilizers; aq. mildewcidal coatings contg. chitosan and its  
solubilizers and stabilizers)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



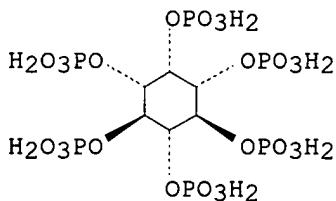
L9 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT **83-86-3**, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing and conditioning article for skin or hair comprising  
surfactants and lipids)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



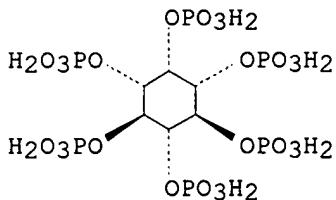
L9 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT **83-86-3**, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing and conditioning products for skin or hair with improved  
deposition of conditioning ingredients)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT **83-86-3**, Phytic acid  
RL: BAC (Biological activity or effector, except adverse); BOC (Biological  
occurrence); BSU (Biological study, unclassified); BIOL (Biological  
study); OCCU (Occurrence)  
(bioactive secondary metabolites from plants for healthy nutrition)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2003 ACS

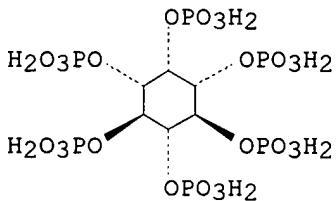
IT **83-86-3**

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(additive; films having additive-transfer coatings suitable for cook-in packaging of foods)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid 34367-89-0, Hexasodium phytate

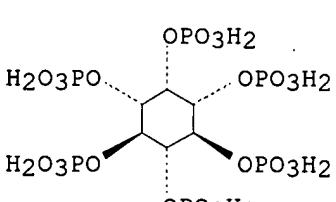
**65494-38-4 70981-44-1**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(anticalculus dentifrices contg. phytates and noncationic bactericides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

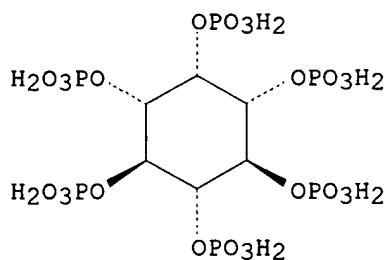
Relative stereochemistry.



RN 34367-89-0 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), hexasodium salt (9CI) (CA INDEX NAME)

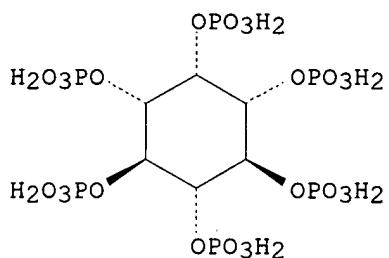
Relative stereochemistry.



● 6 Na

RN 65494-38-4 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), hexaammonium salt (9CI) (CA INDEX NAME)

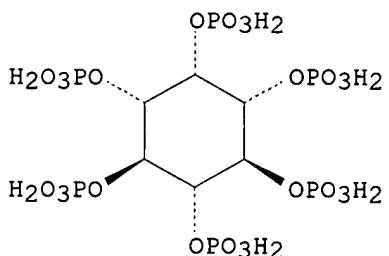
Relative stereochemistry.



● 6 NH<sub>3</sub>

RN 70981-44-1 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), hexapotassium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.

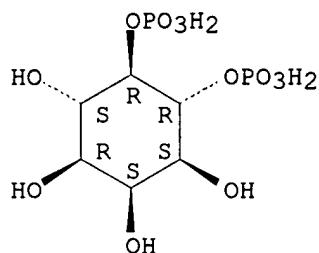


● 6 K

L9 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT 93060-87-8 95120-19-7  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (inhibiting undesirable taste in oral compns.)

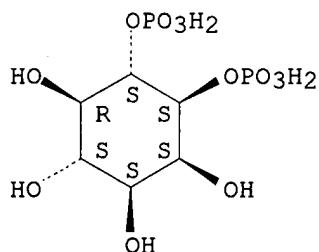
RN 93060-87-8 CAPLUS  
CN myo-Inositol, 4,5-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



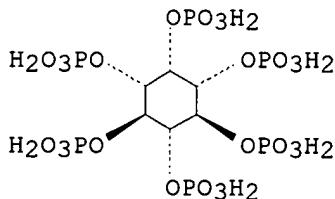
RN 95120-19-7 CAPLUS  
CN myo-Inositol, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



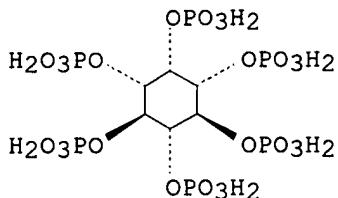
L9 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compns.)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compn.)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

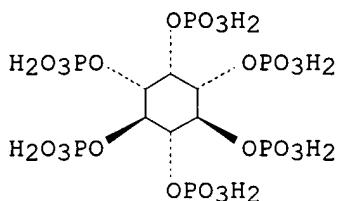
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing compns.)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

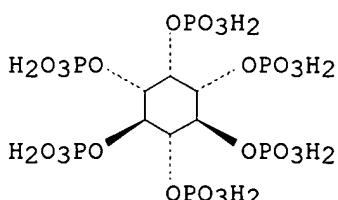
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing compns.)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2003 ACS

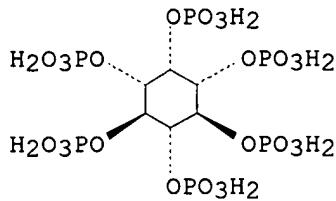
IT **83-86-3**, Phytic acid

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (food preservatives contg. hemicellulose and)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3, Phytic acid

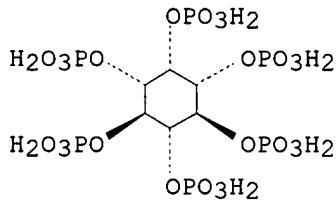
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(pH adjuster; algicides and bactericides contg. lactic acid and pH adjusters for laver cultivation)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 196805-61-5P

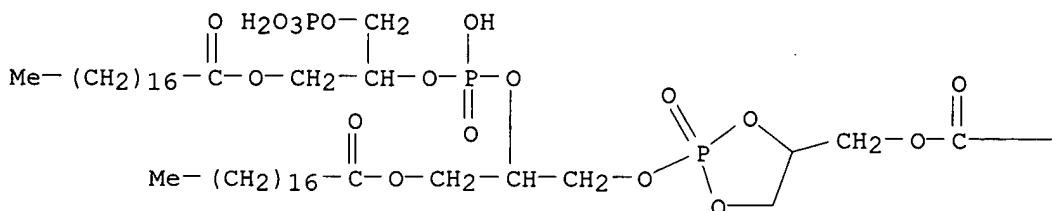
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(amine contg. biocidal compn.)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[2-oxido-4-[[[(1-oxooctadecyl)oxy]methyl]-1,3,2-dioxaphospholan-2-yl]oxy]methyl]-9-oxo-2-[phosphonoxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A



— (CH<sub>2</sub>)<sub>16</sub>—Me

L9 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **189387-30-2**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(algicides and microbicides contg. MeSO<sub>3</sub>H for cultured laver)

RN 189387-30-2 CAPLUS

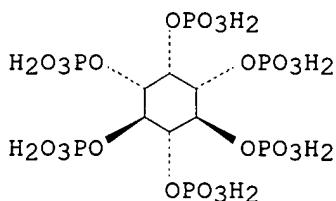
CN myo-Inositol, hexakis(dihydrogen phosphate), mixt. with methanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 83-86-3

CMF C6 H<sub>18</sub> O<sub>24</sub> P<sub>6</sub>

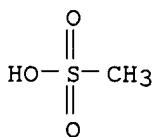
Relative stereochemistry.



CM 2

CRN 75-75-2

CMF C H<sub>4</sub> O<sub>3</sub> S



L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **488-69-7DP**, Fructose-1,6-diphosphate, Sn and Cu salts

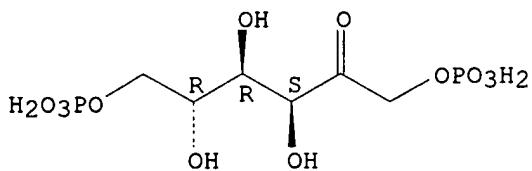
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of copper, tin, and zinc salts of saccharide derivs. for personal care products)

RN 488-69-7 CAPLUS

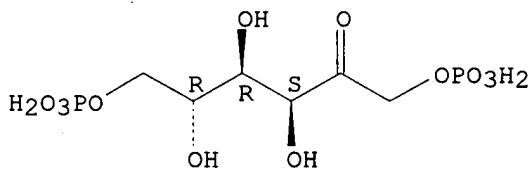
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



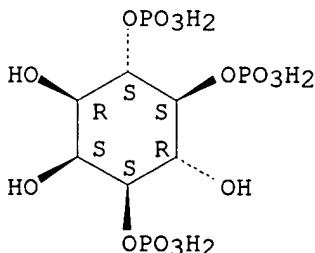
L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 488-69-7, Fructose-1,6-bisphosphate  
RL: BIOL (Biological study)  
(growth of *Pseudomonas glumae* in media contg., starch biosynthesis by rice grains in relation to)  
RN 488-69-7 CAPLUS  
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



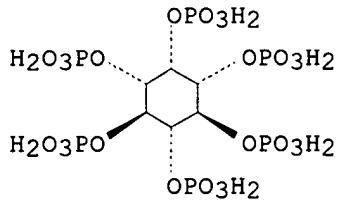
L9 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 88269-39-0, Inositol 1,4,5-trisphosphate  
RL: FORM (Formation, nonpreparative)  
formation of, in alfalfa cell cultures during phytoalexin induction)  
RN 88269-39-0 CAPLUS  
CN myo-Inositol, 1,4,5-tris(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



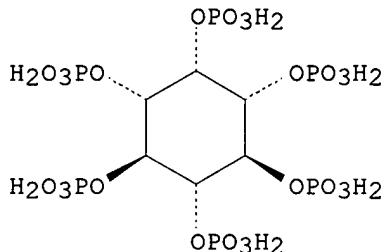
L9 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid 3615-82-5, Phytin  
14306-25-3, Sodium phytate 25663-09-6, myo-Inositol pentakis (dihydrogen phosphate)  
RL: BIOL (Biological study)  
(antiplaque and anticalculus oral compns. contg. bactericides and)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 3615-82-5 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
 (CA INDEX NAME)

Relative stereochemistry.

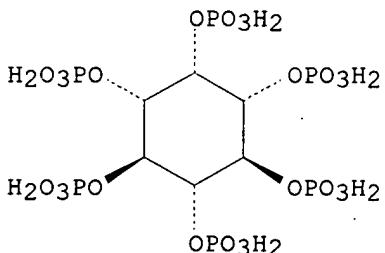


●x Ca

●x Mg

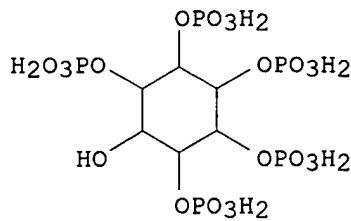
RN 14306-25-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), sodium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.



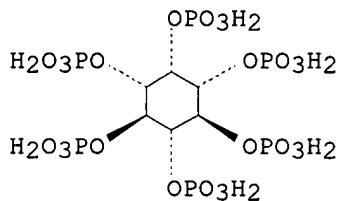
●x Na

RN 25663-09-6 CAPLUS  
 CN myo-Inositol, pentakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

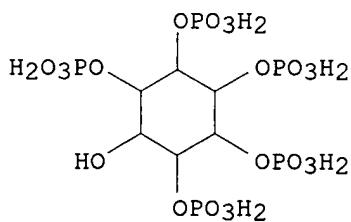


L9 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid 25663-09-6, myo-Inositol  
pentakis(dihydrogen phosphate)  
RL: BIOL (Biological study)  
(antiplaque dentifrice contg. copper salts and, for suppressing mouth  
odors)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.

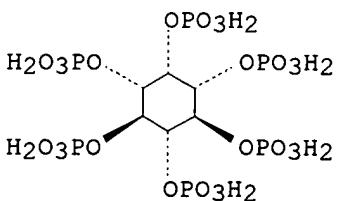


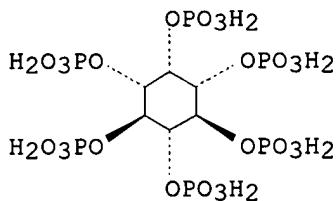
RN 25663-09-6 CAPLUS  
CN myo-Inositol, pentakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)



L9 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 83-86-3, Phytic acid  
RL: BIOL (Biological study)  
(in polylysine-contg. preservative compn.)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.





L9 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2003 ACS

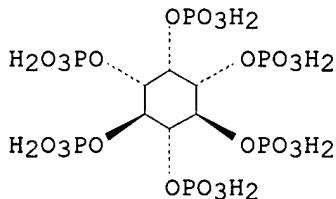
IT **83-86-3**

RL: BIOL (Biological study)  
(ethanol susceptibility of Escherichia coli and Staphylococcus aureus  
response to, as food additive)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS

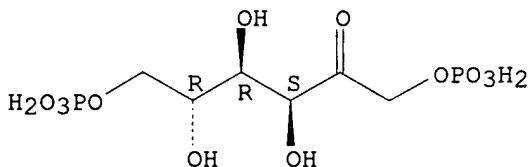
IT **488-69-7**

RL: PROC (Process)  
(of Staphylococcus aureus, NMR of)

RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

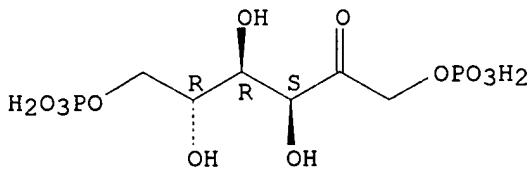
IT **488-69-7**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(antimicrobial activity of, in Candida albicans infection,  
phagocytosis stimulation and ATP in relation to)

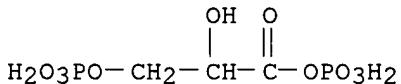
RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT 1981-49-3, Glyceric acid, anhydride with H<sub>3</sub>PO<sub>4</sub>, 3-phosphate  
(formation from 3-phosphoglyceraldehyde by *Saccharomyces cerevisiae*,  
sulfurous acid effect on)  
RN 1981-49-3 CAPLUS  
CN Propanoic acid, 2-hydroxy-3-(phosphonoxy)-, 1-anhydride with phosphoric  
acid (9CI) (CA INDEX NAME)



=> d ibib abs hitstr 28-32 36 40 58 59 65-67

L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2000:631464 CAPLUS  
DOCUMENT NUMBER: 133:207077  
TITLE: Food preservatives containing fructose enzymic  
oxidation products and preservation of food  
INVENTOR(S): Yajima, Mizuo; Nozaki, Kazuhiko  
PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

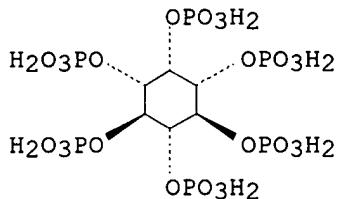
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000245416	A2	20000912	JP 1999-49466	19990226
PRIORITY APPLN. INFO.:			JP 1999-49466	19990226

AB The preservatives, which show broad-spectrum antimicrobial  
effect and do not affect taste and flavor of food, contain (a) acidic  
sugars and/or the related products, prep'd. by treating fructose with  
reducing sugar oxidizing enzymes and (b) .gtoreq.1 selected from org.  
acids, their salts, amino acids, lower fatty acid esters, sugar esters,  
vitamin B1 esters, polyphosphate salts, EtOH, basic proteins, basic  
peptides, antimicrobial substances extd. from *Glycyrrhiza*  
*glabra*, red pepper exts., hop exts., chitosan, and phytic acid. Kamaboko  
contg. fructose oxidn. product (contg. fructuronic acid, related lactone,  
etc.; prep'd. using glucose oxidase), protamine, and glycine, packed in a  
casing was stored at 15.degree. for 54 days to show no change in the  
appearance and odor.

IT 83-86-3  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products

and .gtoreq.1 selected from org acids, fatty acid esters,  
polyphosphates, EtOH, plant-derived microbicides)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2000:630810 CAPLUS  
DOCUMENT NUMBER: 133:207073  
TITLE: Synergistic food preservatives containing galactose enzymic oxidation products  
INVENTOR(S): Yajima, Sumio; Nozaki, Kazuhiko  
PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

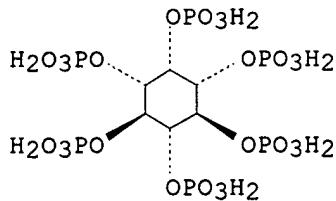
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000245417	A2	20000912	JP 1999-52567	19990301
PRIORITY APPLN. INFO.:			JP 1999-52567	19990301

AB The preservatives, which show broad-spectrum antimicrobial effect and do not affect taste and flavor of food, contain (a) acidic sugars and/or the related products, prep'd. by treating galactose with reducing sugar oxidizing enzymes and (b) .gtoreq.1 selected from org. acids, their salts, amino acids, lower fatty acid esters, sugar esters, vitamin B1 esters, polyphosphate salts, EtOH, basic proteins, basic peptides, antimicrobial substances extd. from Glycyrrhiza glabra, red pepper exts., hop exts., chitosan, and phytic acid. Kamaboko contg. galactose oxidn. product (contg. galacturonic acid, galactaric acid, etc.; prep'd. using glucose oxidase), protamine, and glycine, packed in a casing was stored at 15.degree. for 54 days to show no change in the appearance and odor.

IT 83-86-3  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:573506 CAPLUS  
 DOCUMENT NUMBER: 133:168183  
 TITLE: Cosmetic and/or dermatological composition in the form of an oil-in-water emulsion formed by lipid vesicles dispersed in an aqueous phase containing at least one active hydrophilic acid  
 INVENTOR(S): Ravaux, Danielle; Laugier, Jean-Pierre  
 PATENT ASSIGNEE(S): L'Oreal, Fr.  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1027878	A1	20000816	EP 1999-403289	19991227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2789329	A1	20000811	FR 1999-1387	19990205
FR 2789329	B1	20010302		
KR 2000057824	A	20000925	KR 2000-4263	20000128
BR 2000000613	A	20010502	BR 2000-613	20000202
JP 2000229840	A2	20000822	JP 2000-26700	20000203
US 6416768	B1	20020709	US 2000-499391	20000207

PRIORITY APPLN. INFO.: FR 1999-1387 A 19990205

OTHER SOURCE(S): MARPAT 133:168183

AB The title compns. are disclosed. A double-compartment bottle contained polyglyceryl-2-stearate 0.2, PEG-8 stearate 0.135, Amisoft HS-20 0.09, isocetyl stearate 0.7, squalane 1.3, and water 7.075 g. The emulsion had a viscosity of about 7 cP at 2.degree. and pH = 7.3. The top of the bottle contained 0.5 g of ascorbic acid. By addn. of the ascorbic acid to the emulsion the pH decreased to 3.3 and the viscosity increased to 850 cP at 25.degree. forming a white cream.

IT 83-86-3, Phytic acid

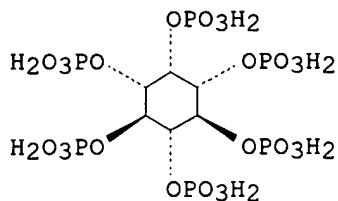
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

RN 83-86-3 CAPLUS

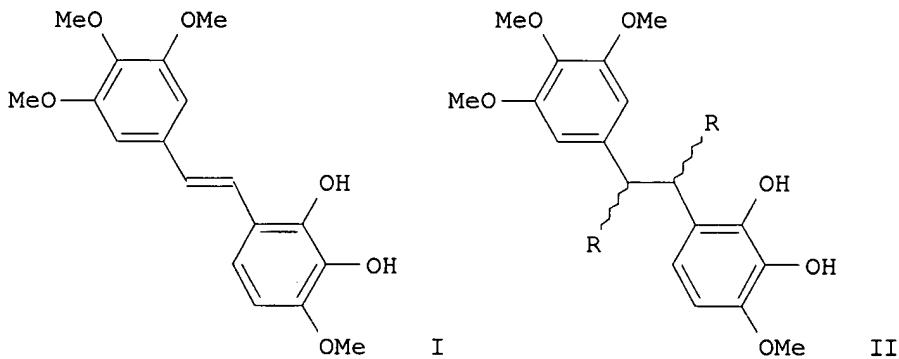
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:443011 CAPLUS  
 DOCUMENT NUMBER: 133:207722  
 TITLE: Antineoplastic Agents 440. Asymmetric Synthesis and Evaluation of the Combretastatin A-1 SAR Probes (1S,2S)- and (1R,2R)-1,2-Dihydroxy-1-(2',3'-dihydroxy-4'-methoxyphenyl)-2-(3'',4'',5''-trimethoxyphenyl)-ethane  
 AUTHOR(S): Pettit, George R.; Lippert, John W., III; Herald, Delbert L.; Hamel, Ernest; Pettit, Robin K.  
 CORPORATE SOURCE: Cancer Research Institute and Department of Chemistry, Arizona State University, Tempe, AZ, 85287-2404, USA  
 SOURCE: Journal of Natural Products (2000), 63(7), 969-974  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The synthetic (E)-isomer (I) of natural combretastatin A-1 isolated from the African bushwillow *Combretum caffrum* was the focus of chiral hydroxylation (Sharpless) reactions as part of a structure-activity relationship study. The resulting (R,R)- (II; R = .alpha.-OH) (III) and (S,S,)-diols II (R = .beta.-OH) (IV) and synthetic intermediates were evaluated against a series of cancer cell lines, microorganisms, and tubulin. Chiral diols III and IV showed increased activity against the P-388 murine lymphocytic leukemia cell line with ED<sub>50</sub> values of 3.9 and 2.9 .mu.g/mL, resp., when compared to the precursor (E)-stilbene I. In contrast, I exhibited more potent antibiotic activity than the chiral diols, III and IV. Both diols, III and IV, displayed less cancer cell growth inhibition and less antibiotic activity than did natural combretastatin A-1 (P-388 ED<sub>50</sub> 0.25 .mu.g/mL).

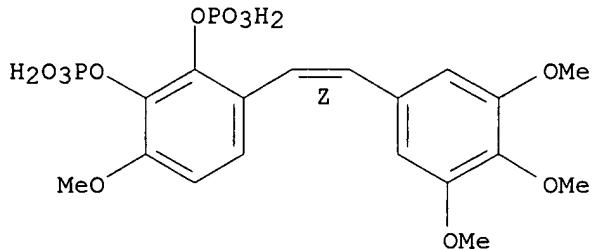
IT 288847-34-7 290295-05-5

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or

effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (cytotoxicity of, in structure activity relationship study of the combretastatin A1 SAR probes)

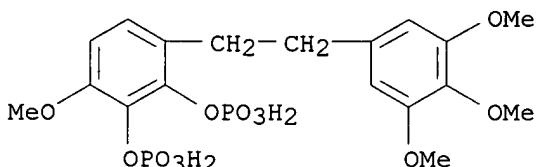
RN 288847-34-7 CAPLUS  
 CN 1,2-Benzenediol, 3-methoxy-6-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● 4 Na

RN 290295-05-5 CAPLUS  
 CN 1,2-Benzenediol, 3-methoxy-6-[2-(3,4,5-trimethoxyphenyl)ethyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:220734 CAPLUS  
 DOCUMENT NUMBER: 132:256077  
 TITLE: Compositions for sustained release of a antimicrobial gas  
 INVENTOR(S): Wellinghoff, Stephen T.; Barenberg, Sumner A.; Kampa, Joel J.; Barlow, Darren E.  
 PATENT ASSIGNEE(S): Bernard Technologies, Inc., USA  
 SOURCE: U.S., 43 pp., Cont.-in-part of U.S. 5,650,446.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 12  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6046243	A	20000404	US 1997-858860	19970519
US 5360609	A	19941101	US 1993-17657	19930212
US 5631300	A	19970520	US 1995-462164	19950605
US 5650446	A	19970722	US 1995-465358	19950605
US 5668185	A	19970916	US 1995-461716	19950605
US 5705092	A	19980106	US 1995-461304	19950605
US 5707739	A	19980113	US 1995-465086	19950605
US 5695814	A	19971209	US 1996-682318	19960717
US 5639295	A	19970617	US 1996-726413	19961003
US 5980826	A	19991109	US 1996-724907	19961003
WO 9852412	A1	19981126	WO 1998-US8387	19980424
W: JP, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 982986	A1	20000308	EP 1998-918754	19980424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2002507195	T2	20020305	JP 1998-550371	19980424
AU 9863637	A1	19981119	AU 1998-63637	19980428
AU 717604	B2	20000330		

PRIORITY APPLN. INFO.:

US 1993-17657	A3	19930212
US 1994-192498	B2	19940203
US 1994-192498	YY	19940203
US 1994-192499	B2	19940203
US 1994-228671	B3	19940418
US 1995-461304	A2	19950605
US 1995-461706	B1	19950605
US 1995-461716	A2	19950605
US 1995-462039	B2	19950605
US 1995-462164	YY	19950605
US 1995-462164	A2	19950605
US 1995-465086	A3	19950605
US 1995-465087	B1	19950605
US 1995-465358	A2	19950605
US 1996-682318	A2	19960717
US 1996-724907	A2	19961003
US 1996-726413	A2	19961003
US 1993-16904	B3	19930212
US 1997-858860	A	19970519
WO 1998-US8387	W	19980424

OTHER SOURCE(S): MARPAT 132:256077

AB A composite for retarding microbiol. contamination contg. a hydrophobic material contg. an acid releasing agent, and a hydrophilic material contg. anions that are capable of reacting with hydronium ions to generate a gas. The hydrophilic and hydrophobic materials are adjacent and substantially free of water, and the hydrophilic material is capable of generating and releasing the gas after hydrolysis of the acid releasing agent. A compn. was prep'd. contg. sodium chlorite, formamide, acrylamide, isopropylacrylamide and hydrophobic material consisting of a 40% soln. of maleic anhydride-styrene copolymer in ethylbenzene plasticizer. Hydronium ions formed during hydrolysis reacted with chlorite anions to release chlorine dioxide.

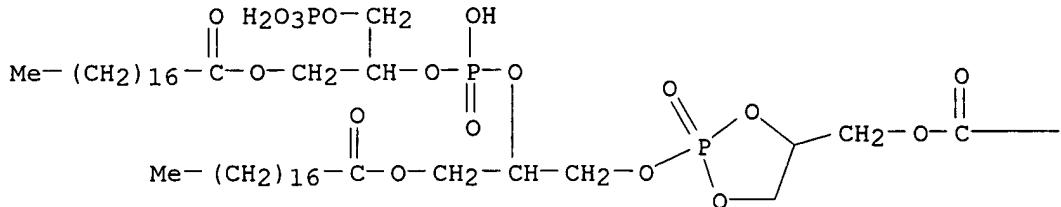
IT 196805-61-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(compns. for sustained release of an antimicrobial gas)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[[2-oxido-4-[(1-oxooctadecyl)oxy]methyl]-1,3,2-dioxaphospholan-2-yl]oxy]methyl]-9-oxo-2-[ (phosphonoxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH<sub>2</sub>)<sub>16</sub> — Me

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1999:795810 CAPLUS  
DOCUMENT NUMBER: 132:35694  
TITLE: Oxazolidinone derivatives, process for their preparation and pharmaceutical compositions containing them as antibiotics  
INVENTOR(S): Gravestock, Michael Barry  
PATENT ASSIGNEE(S): Zeneca Limited, UK  
SOURCE: PCT Int. Appl., 188 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964417	A2	19991216	WO 1999-GB1753	19990603
WO 9964417	A3	20000203		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2333332	AA	19991216	CA 1999-2333332	19990603
AU 9941571	A1	19991230	AU 1999-41571	19990603
AU 753988	B2	20021031		
BR 9910971	A	20010213	BR 1999-10971	19990603
EP 1082323	A2	20010314	EP 1999-925188	19990603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EE 200000707	A	20020415	EE 2000-707	19990603
JP 2002517498	T2	20020618	JP 2000-553426	19990603
NO 2000006152	A	20010202	NO 2000-6152	20001204

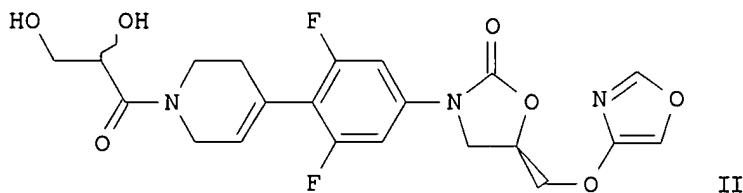
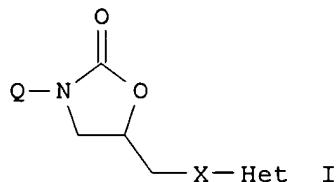
PRIORITY APPLN. INFO.:

GB 1998-12021 A 19980605  
GB 1998-20164 A 19980917  
GB 1998-26066 A 19981128  
WO 1999-GB1753 W 19990603

OTHER SOURCE(S):

CASREACT 132:35694; MARPAT 132:35694

GI



AB Title compds. I and their pharmaceutically-acceptable salts and in-vivo-hydrolyzable esters are described [wherein, for example: X = O or S; Het = (un)substituted C-linked 5-membered heteroaryl ring contg. 2 to 4 heteroatoms independently selected from N, O, and S; Q = (for example) certain substituted phenyls, 2-pyridyls, or 1,2,5,6-tetrahydropyrid-4-yls]. The compds. are useful as **antibacterial** agents, and have good activity against a broad range of Gram-pos. pathogens, including organisms known to be resistant to most commonly known antibiotics. For instance, 5(R)-[(isoxazol-3-yloxy)methyl]-3-[4-(1,2,5,6-tetrahydropyrid-4-yl)-3,5-difluorophenyl]oxazolidin-2-one (prepn. given) underwent N-acylation by (R,S)-2,3-O-isopropylideneglyceric acid using EDC and Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> (39%), followed by deprotection with HCl in aq. THF (80%), to give title compd. II. Against coagulase-neg. staphylococci, II had an MIC (.mu.g/mL) of 0.13 for methicillin-sensitive strains, and 0.50 for methicillin-resistant strains.

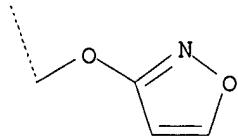
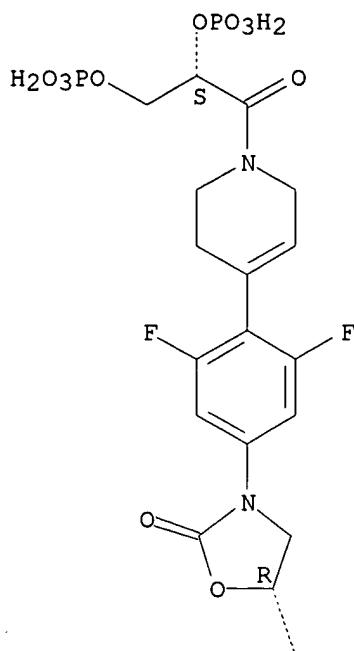
IT 252260-05-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(prepn. of antibiotic oxazolidinone derivs.)

RN 252260-05-2 CAPLUS

CN Pyridine, 4-[2,6-difluoro-4-[(5R)-5-[(3-isoxazolylloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



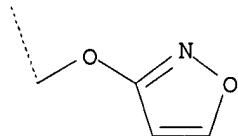
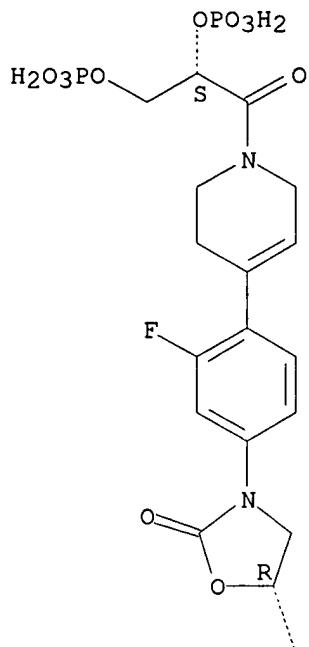
IT 252260-03-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of antibiotic oxazolidinone derivs.)

RN 252260-03-0 CAPLUS

CN Pyridine, 4-[2-fluoro-4-[(5R)-5-[(3-isoxazolylloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1999:549112 CAPLUS  
 DOCUMENT NUMBER: 131:155521  
 TITLE: Method of processing and preserving collagen based tissues  
 INVENTOR(S): Livesey, Stephen A.; Coleman, Christopher L.; Boerboom, Lawrence E.; Griffey, Edward S.  
 PATENT ASSIGNEE(S): Lifecell Corporation, USA  
 SOURCE: PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941981	A1	19990826	WO 1999-US3667	19990219
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 CA 2320887 AA 19990826 CA 1999-2320887 19990219  
 AU 9927753 A1 19990906 AU 1999-27753 19990219  
 AU 752457 B2 20020919  
 EP 1056335 A1 20001206 EP 1999-908285 19990219  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 JP 2002503678 T2 20020205 JP 2000-532008 19990219  
 PRIORITY APPLN. INFO.: US 1998-75472P P 19980220  
 WO 1999-US3667 W 19990219

**AB** A process for the preserving collagen-based tissues involves procuring the collagen-based tissue; treating the tissue in a detergent soln.; treating the tissue in an enzyme soln.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the Maillard reaction and the subsequent formation of advanced glycosylation end products; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via reactive oxidative species of mols.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the formation and propagation of mol. free radicals; treating the tissue in a cryopreservation soln.; and cryopreserving the tissue. The process may be utilized to preserve several differing types of collagen based tissue including heart valve, vascular grafts including veins and arteries, umbilical vessels, nerve and nervous system tissue, dura, dermis and other similar collagen based tissues. An example is given detailing procurement of pig heart valve, decellularization, and cryopreservation.

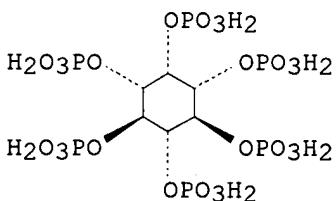
**IT** 83-86-3, Phytic acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
      (preservation of collagen based tissues)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.

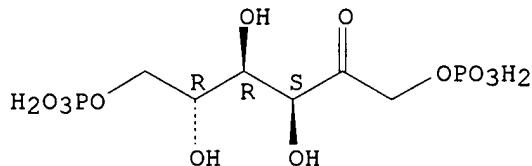


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1995:928112 CAPLUS  
 DOCUMENT NUMBER: 123:340761  
 TITLE: Preparation of copper, tin, and zinc salts of saccharide derivatives for personal care products.  
 INVENTOR(S): Traudt, Michael David; Waterfield, Philip Christopher  
 PATENT ASSIGNEE(S): Unilever PLC, UK  
 SOURCE: Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 658565	A1	19950621	EP 1993-310259	19931217
R: DE, FR, GB, IT				
PRIORITY APPLN. INFO.: EP 1993-310259 19931217				
AB Copper, tin, and zinc salts of polyhydroxy compds. having at least 4 C atoms and at least 1 acid, ester-linked salt-forming substituent, excluding zinc hexosephosphates and stannous glucose-1-phosphate, are claimed. These salts have anti-bacterial activity and are useful for inclusion in personal care compns., particularly in oral care compns., to impart anti-plaque, anti-caries, anti-gingivitis properties thereto. Thus, disodium glucose-6-phosphate and SnCl <sub>2</sub> were stirred 30 min. in H <sub>2</sub> O; MeOH was added to ppt. stannous glucose-6-phosphate. The latter at 6000 ppm gave 88% kill of plaque bacteria.				
IT	488-69-7DP, Fructose-1,6-diphosphate, Sn and Cu salts			
	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of copper, tin, and zinc salts of saccharide derivs. for personal care products)			
RN	488-69-7 CAPLUS			
CN	D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)			

Absolute stereochemistry.



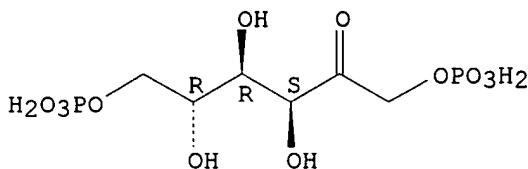
L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1994:452262 CAPLUS  
 DOCUMENT NUMBER: 121:52262  
 TITLE: Susceptibility of rice spikelets to infection with Pseudomonas glumae and its population dynamics  
 AUTHOR(S): Hikichi, Yasufumi; Okuno, Tetsuro; Furusawa, Iwao  
 CORPORATE SOURCE: Takarazuka Res. Cent., Sumitomo Chem. Co., Ltd., Kishiro, 675-23, Japan  
 SOURCE: Journal of Pesticide Science (International Edition) (1994), 19(1), 11-17  
 CODEN: JPESEC; ISSN: 0916-9962  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Spikelets of rice plants at flowering were most susceptible to invasion of Pseudomonas glumae. When P. glumae invaded into flowering spikelets at a d. of 1 cfu/grain or more, the population of bacteria in spikelets greatly increased up to 9 days after the flowering day, resulting in bacterial grain rot of rice. In rice spikelets the time of accumulation of intermediate sugars for the biosynthesis of grain starch were consistent with the time of increase of bacterial population. P. glumae was able to utilize intermediate sugars except for sucrose and triose phosphates. Oxolinic acid (Starner) had antibacterial activity against P. glumae on the epidermis of spikelets, and reduced the bacterial infectivity into rice spikelets. Oxolinic acid applied to flowering spikelets also inhibited multiplication of P. glumae and protected grains from bacterial grain rot of rice.

IT 488-69-7, Fructose-1,6-bisphosphate  
 RL: BIOL (Biological study)  
 (growth of Pseudomonas glumae in media contg., starch biosynthesis by rice grains in relation to)

RN 488-69-7 CAPLUS  
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1983:467310 CAPLUS  
DOCUMENT NUMBER: 99:67310  
TITLE: Phosphorus-31 and carbon-13 nuclear magnetic resonance studies of anaerobic glucose metabolism and lactate transport in *Staphylococcus aureus* cells  
AUTHOR(S): Ezra, Fouad S.; Lucas, Donald S.; Mustacich, Robert V.; Russell, Anne F.  
CORPORATE SOURCE: Miami Valley Lab., Procter and Gamble Co., Cincinnati, OH, 45247, USA  
SOURCE: Biochemistry (1983), 22(16), 3841-9  
CODEN: BICHAW; ISSN: 0006-2960  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB High-resoln. Fourier transform  $^{31}\text{P}$  and  $^{13}\text{C}$  NMR were used to probe several aspects of glucose metab. and lactate transport in the gram-pos. bacterium *Staphylococcus aureus*. The  $^{31}\text{P}$  NMR spectra show resonances due to intracellular ( $\text{Pi}_{\text{in}}$ ) and extracellular orthophosphate ( $\text{Pi}_{\text{ex}}$ ), sugar phosphate, and nucleoside di- and triphosphates. A peak due to teichoic acid was also identified. Its appearance indicates a relatively high degree of mobility in the backbone of this cell wall polymer. The intracellular pH is estd. from the chem. shift of the  $\text{Pi}_{\text{in}}$  resonance and is dependent upon the pH of the external medium. A prominent feature of the  $^{31}\text{P}$  NMR spectra is the progressive broadening and downfield shift of the  $\text{Pi}_{\text{in}}$  resonance that occur when the cells are maintained in an anaerobic environment. Oxygenation causes a narrowing and an upfield shift of the  $\text{Pi}_{\text{in}}$  resonance and reverses the trends obsd. under anaerobic conditions. These line width and chem. shift variations are attributed mainly to a binding of the orthophosphate to paramagnetic ions accumulated by the cells during growth. The ESR spectrum of a perchloric acid ext. shows a sextet characteristic of Mn(II) hexaaquo ions. Apparently, the Mn is involved in  $\text{O}_2$  metab.  $^{13}\text{C}$  NMR spectra obtained from *S. aureus* cells incubated anaerobically with [ $1-^{13}\text{C}$ ]- or [ $6-^{13}\text{C}$ ]glucose show resonances due to fructose 1,6-diphosphate as an intermediary metabolite and mannitol, lactate, and EtOH as the major end products of glucose metab. The identity of mannitol is detd. from the  $^{13}\text{C}$  NMR spectrum of a perchloric acid ext. The pH of the external medium affects the glycolytic rate and the distribution of end products. When the pH of the medium is raised from 6.0 to 7.5, the rate of glucose consumption is enhanced, whereas the amt. of mannitol produced relative to lactate is drastically reduced. The latter effect is explained in terms of the regulation of phosphofructokinase activity by the intracellular pH. The intra- and extracellular lactate appear as 2 well-resolved resonances due primarily to the presence of the  $\text{Mn}^{2+}$  inside the cells. The result is a downfield shift and broadening of the intracellular resonance which depend on the oxygenation state of the cells and resemble the trends obsd. in the  $^{31}\text{P}$  NMR spectra. The chem. shift inequivalence of the 2 lactate resonances allows the distribution and transport of this metabolite to be measured,

with both the internal and external components being monitored independently. During anaerobic glycolysis, a lactate concn. gradient favoring the cytoplasmic compartment is established. The final intracellular concn. is estd. to be 2-5-fold greater than that in the external medium. In the presence of O<sub>2</sub>, lactate is transported into the cells. A rapid efflux occurs as the cells revert to an anaerobic state. Treatment with a fatty acid antimicrobial agent, octanoate, results in a concn.-dependent redn. of the transmembrane pH gradient and a loss of lactate from the cells during glycolysis. In addn., the uptake of lactate during oxygenation is completely inhibited.

IT 488-69-7

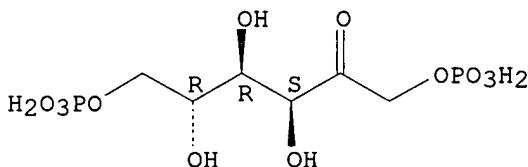
RL: PROC (Process)

(of *Staphylococcus aureus*, NMR of)

RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1983:400197 CAPLUS

DOCUMENT NUMBER: 99:197

TITLE: Experimental candidiasis in rabbits: protective action of fructose-1,6-diphosphate

AUTHOR(S): Tarsi, R.; Simonetti, N.; Orpianesi, C.

CORPORATE SOURCE: Inst. Microbiol., Univ. Camerino, Camerino, Italy

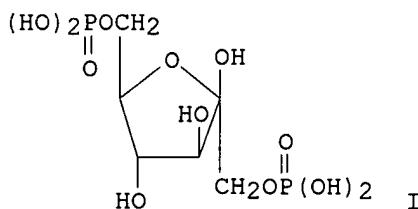
SOURCE: Mycopathologia (1983), 81(2), 111-16

CODEN: MYCPAH; ISSN: 0369-299X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Fructose-1,6-diphosphate (FDP) (I) [488-69-7] exerts a significant protective action towards *Candida albicans* infections in rabbits. Such protective action seems related to phagocytic activity stimulation by increased ATP [56-65-5] prodn.

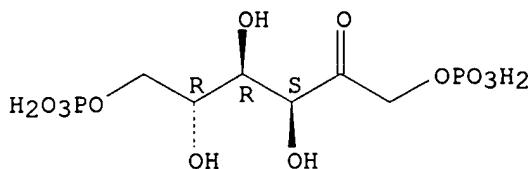
IT 488-69-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antimicrobial activity of, in *Candida albicans* infection, phagocytosis stimulation and ATP in relation to)

RN 488-69-7 CAPLUS  
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:5707 CAPLUS

DOCUMENT NUMBER: 64:5707

ORIGINAL REFERENCE NO.: 64:1053e-f

TITLE:

**Antimicrobial action of sulfurous acid. V.**

The action of sulfurous acid on the metabolism of respiring and fermenting yeast and Escherichia coli cells

AUTHOR(S):

Wallnoefer, P.; Rehm, H. J.

CORPORATE SOURCE:

Deut. Forschungsanstalt Lebensmittelchem., Munich, Germany

SOURCE:

Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1965), 127(4), 195-206

CODEN: ZLUFAR; ISSN: 0044-3026

DOCUMENT TYPE:

Journal

LANGUAGE:

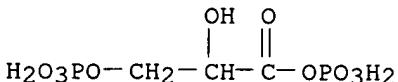
German

AB cf. CA 63, 10349a. Studies were made on the effects of H<sub>2</sub>SO<sub>3</sub> on the respiration and fermentation metabolism of E. coli and *Saccharomyces cerevisiae*. H<sub>2</sub>SO<sub>3</sub> inhibits fermentation of *S. cerevisiae* by blocking NAD-dependent reaction of 3-phosphoglyceraldehyde to 1,3-diphosphoglycerate to a greater degree than that of E. coli. Alc. formation by *S. cerevisiae* and lactic acid formation by E. coli are not directly inhibited by H<sub>2</sub>SO<sub>3</sub>. H<sub>2</sub>SO<sub>3</sub> inhibits respiration of E. coli principally by blocking the NAD-dependent reaction of malate to oxalacetate; through the blocking of the NADP-dependent reaction of isocitrate to oxalacetate; and the NAD-dependent reaction of .alpha.-ketoglutarate to S-succinyl-CoA. In vitro, H<sub>2</sub>SO<sub>3</sub> did not inhibit the alc. dehydrogenase of yeast.

IT 1981-49-3, Glyceric acid, anhydride with H<sub>3</sub>PO<sub>4</sub>, 3-phosphate (formation from 3-phosphoglyceraldehyde by *Saccharomyces cerevisiae*, sulfurous acid effect on)

RN 1981-49-3 CAPLUS

CN Propanoic acid, 2-hydroxy-3-(phosphonoxy)-, 1-anhydride with phosphoric acid (9CI) (CA INDEX NAME)



=> d it 28-32 36 40 58 59 65-67

L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Licorice (*Glycyrrhiza glabra*)

(antimicrobial substances from; synergistic food

preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Peptides, biological studies  
Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(basic; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Fatty acids, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(esters, lower; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Hop (*Humulus lupulus*)  
(exts.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Capsicum annum annum  
(longum group, exts.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Salts, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(org., org.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Acids, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(org.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Polyphosphoric acids  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(sodium salts; synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Antimicrobial agents  
Food preservatives  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Amino acids, biological studies  
Polyphosphates  
Protamines  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gt;req.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9035-73-8, Oxidase

RL: CAT (Catalyst use); USES (Uses)  
(reducing sugar; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 57-48-7DP, D-Fructose, enzymic oxidn. products  
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 57-50-1D, fatty acid esters 59-43-8D, esters 64-17-5, Ethanol, biological studies 72-17-3 **83-86-3** 110-44-1 127-09-3 9012-76-4, Chitosan 24634-61-5 25339-99-5 26402-26-6 39479-63-5  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9001-37-0  
RL: CAT (Catalyst use); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Licorice (*Glycyrrhiza glabra*)  
(antimicrobial substances from; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Peptides, biological studies  
Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(basic; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Fatty acids, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(esters, lower; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Hop (*Humulus lupulus*)  
(exts.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Capsicum annuum annuum  
(longum group, exts.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Acids, biological studies  
Salts, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);

USES (Uses)  
(org.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Polyphosphoric acids  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(sodium salts; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Antimicrobial agents  
Food preservatives  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Amino acids, biological studies  
Polyphosphates  
Protamines  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9035-73-8, Oxidase  
RL: CAT (Catalyst use); USES (Uses)  
(reducing sugar; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 59-23-4DP, D-Galactose, enzymic oxidn. products  
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufature); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 57-50-1D, fatty acid esters 59-43-8D, esters 64-17-5, Ethanol, biological studies 72-17-3 **83-86-3** 110-44-1 127-09-3 9012-76-4, Chitosan 24634-61-5 25339-99-5 26402-26-6 39479-63-5  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9001-37-0  
RL: CAT (Catalyst use); USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

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IT Sulfonates  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(alkanesulfonates; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
(antiaging; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Essential oils  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(bergamot; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Hair preparations  
(bleaches; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Anti-inflammatory agents  
**Antibacterial agents**  
Antioxidants  
Antiperspirants  
Centella asiatica  
Dyes  
Fungicides  
Immunomodulators  
Perfumes  
Surfactants  
(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Ceramides  
Corn oil  
Essential oils  
Phospholipids, biological studies  
Sphingomyelins  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
(creams; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Skin, disease  
(depigmentation; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Hair preparations  
(dyes; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
(emulsions; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Fatty acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(essential, glycerides; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Melissa  
Microalgae  
Rosemary

(ext.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Carboxylic acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(hydroxy; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acne  
Dandruff  
Seborrhea  
(inhibitors; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Radicals, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(inorg.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
(moisturizers; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(org.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Carboxylic acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(oxo; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Hair preparations  
(permanent wave; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
(wrinkle-preventing; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 58-95-7, D-.alpha.-Tocopherol acetate 59-02-9, D-.alpha.-Tocopherol 68-26-8D, Retinol, esters 69-72-7, -Salicylic acid, biological studies 74-79-3, Arginine, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 81-13-0, D Panthenol 83-86-3, Phytic acid 87-69-4, Tartaric acid, biological studies 90-64-2, Mandelic acid 102-71-6, Triethanolamine, biological studies 106-11-6, Diethylene glycol monostearate 112-85-6, Behenic acid 115-83-3, Pentaerythritol tetraestearate 117-39-5, Quercetine 127-17-3, Pyruvic acid, biological

studies 137-66-6, Ascorbyl palmitate 331-39-5, Caffeic acid 451-13-8, Homogentisic acid 464-92-6, Asiatic acid 490-79-9, Gentisic acid 501-30-4, Kojic acid 506-30-9, Arachidic acid 515-69-5, .alpha.-Bisabolol 526-95-4, Gluconic acid 1256-86-6D, Cholesterol sulfate, alkali salts 1310-73-2, Sodium hydroxide, biological studies 1338-41-6, Sorbitan monostearate 1449-05-4, .beta.-Glycyrrhetic acid 2197-63-9, Dicetyl phosphate 4358-16-1D, Cholesterol phosphate, alkali salts 4602-84-0, Farnesol 5466-77-3, Octyl 4-methoxycinnamate 6640-03-5, Dimyristyl phosphate 6915-15-7, Malic acid 7235-40-7, .beta.-Carotene 7664-38-2, Phosphoric acid, biological studies 9004-99-3 9005-08-7, Polyoxyethylene distearate 9005-67-8, Polyoxyethylene sorbitan monostearate 9005-71-4, Polyoxyethylene sorbitan tristearate 10191-41-0, DL-.alpha.-Tocopherol 11099-07-3, Glyceryl stearate 11140-06-0, Glycerol palmitate 12694-22-3, Diglycerolmonostearate 16690-92-9D, Disodium glutamate, acyl derivs. 16830-15-2, Asiaticoside 18449-41-7, Madecassic acid 26658-19-5, Sorbitan tristearate 27195-16-0, Sucrose distearate 29548-30-9, Farnesyl acetate 30233-64-8, Glyceryl monobehenate 35054-79-6, Hydroxybutyric acid 36413-60-2, Quinic acid 39529-26-5, Decaglyceryl decastearate 52225-20-4, DL-.alpha.-Tocopherol acetate 71185-87-0, Hexaglyceryl tristearate 74563-64-7, Phytanetriol 78418-01-6, Octanoyl 5-salicylic acid 88122-99-0, Octyl triazone 95461-64-6, Decaglyceryl pentastearate 95461-65-7, Hexaglyceryl monostearate 99734-29-9, Tetraglyceryl tristearate 99880-64-5, Glyceryl dibehenate 108528-58-1, Butylmethoxydibenzylmethane 119831-19-5 123013-10-5 155633-54-8 191226-60-5

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT 1406-16-2, Vitamin d

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(glycerides; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

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IT Aromatic hydrocarbons, reactions  
Aromatic hydrocarbons, reactions

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(aryl alkenes; in asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Alkenes, reactions

Alkenes, reactions

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(aryl; in asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Antimicrobial agents

Cytotoxic agents

(asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Proliferation inhibition

(proliferation inhibitors; asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Dihydroxylation

(stereoselective; of E-stilbene in asym. synthesis and structure

activity relationship study of the combretastatin A1 SAR probes)  
IT Structure-activity relationship  
(tubulin polymn.-inhibiting; asym. synthesis and structure activity  
relationship study of the combretastatin A1 SAR probes)

IT 109984-84-1 117048-62-1  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BIOL (Biological study)  
(antimicrobial activity of, in structure activity  
relationship study of the combretastatin A1 SAR probes)

IT 109984-83-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(asym. synthesis and structure activity relationship study of the  
combreastatin A1 SAR probes)

IT 290295-02-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(asym. synthesis and structure activity relationship study of the  
combreastatin A1 SAR probes)

IT 290295-03-3P 290295-04-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(asym. synthesis and structure activity relationship study of the  
combreastatin A1 SAR probes)

IT 290294-99-4P 290295-00-0P  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or  
effector, except adverse); BSU (Biological study, unclassified); SPN  
(Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(asym. synthesis, cytotoxicity, antimicrobial and tubulin  
polymn. inhibitory activity of, in structure activity relationship  
study of the combretastatin A1 SAR probes)

IT 290295-01-1P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP  
(Preparation); RACT (Reactant or reagent)  
(crystal structure; asym. synthesis and structure activity relationship  
study of the combretastatin A1 SAR probes)

IT 109971-64-4 168555-66-6  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or  
effector, except adverse); BSU (Biological study, unclassified); BIOL  
(Biological study)  
(cytotoxicity and antimicrobial activity of, in structure  
activity relationship study of the combretastatin A1 SAR probes)

IT 288847-34-7 290295-05-5  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or  
effector, except adverse); BSU (Biological study, unclassified); BIOL  
(Biological study)  
(cytotoxicity of, in structure activity relationship study of the  
combreastatin A1 SAR probes)

IT 109971-63-3 117048-59-6 226989-89-5 226990-10-9  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or  
effector, except adverse); BSU (Biological study, unclassified); BIOL  
(Biological study)  
(cytotoxicity, antimicrobial and tubulin polymn. inhibitory  
activity of, in structure activity relationship study of the  
combreastatin A1 SAR probes)

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IT Antimicrobial agents  
Molecular sieves  
(compns. for sustained release of an antimicrobial gas)

IT Bentonite, biological studies  
Clays, biological studies  
Kaolin, biological studies  
Silica gel, biological studies

Zeolites (synthetic), biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT Amine, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(primary; compns. for sustained release of an antimicrobial gas)

IT Drug delivery systems  
(sustained-release; compns. for sustained release of an antimicrobial gas)

IT 10049-04-4, Chlorine oxide (ClO<sub>2</sub>)  
RL: FMU (Formation, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); RACT (Reactant or reagent); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 14998-27-7, Chlorite  
RL: FMU (Formation, unclassified); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 1344-28-1, Alumina, biological studies 7487-88-9, Magnesium sulfate, biological studies 7720-78-7, Ferrous sulfate 7722-64-7, Potassium permanganate 7757-82-6, Sodium sulfate, biological studies 7778-18-9, Calcium sulfate 10043-52-4, Calcium chloride, biological studies  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 79-16-3, N-Methylacetamide 123-94-4 124-40-3, Dimethylamine, reactions 142-84-7, Dipropylamine 1323-83-7, Glycerol distearate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(compns. for sustained release of an antimicrobial gas)

IT 196805-61-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(compns. for sustained release of an antimicrobial gas)

IT 20101-88-6P 116882-77-0P 185981-96-8P 262852-72-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 75-12-7, Formamide, biological studies 75-31-0, Isopropylamine, biological studies 79-06-1, 2-Propenamide, biological studies 111-41-1 124-68-5 140-31-8, 1-(2-Aminoethyl)piperazine 141-43-5, biological studies 929-06-6, 2-(2-Aminoethoxy)ethanol 1323-39-3, Propylene glycol monostearate 2210-25-5 7209-38-3, 1,4-Piperazinedipropanamine 7758-19-2, Sodium chlorite 27578-60-5, 1-(2-Aminoethyl)piperidine 93505-76-1  
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 27754-92-3P  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

IT 74-90-8, Hydrocyanic acid, biological studies 7446-09-5, Sulfur dioxide, biological studies 7782-50-5, Chlorine, biological studies 7783-06-4, Hydrogen sulfide, biological studies 7791-21-1, Chlorine oxide (ClO<sub>2</sub>) 9011-13-6, Maleic anhydride-styrene copolymer 10102-43-9, Nitric oxide, biological studies 10102-44-0, Nitrogen dioxide, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(compns. for sustained release of an antimicrobial gas)

L9 ANSWER 36 OF 67 CAPIUS COPYRIGHT 2003 ACS

IT Antibacterial agents  
Antibiotic resistance  
Antibiotics

(prepn. of antibiotic oxazolidinone derivs.)

IT 252259-90-8P 252259-95-3P 252259-96-4P 252259-97-5P 252259-99-7P  
252260-01-8P 252260-02-9P **252260-05-2P** 252260-13-2P  
252260-17-6P 252260-18-7P 252260-26-7P 252260-31-4P 252260-33-6P  
252279-69-9P 252279-74-6P 252279-76-8P 252279-81-5P 252279-83-7P  
252279-89-3P 252279-98-4P 252280-02-7P 252280-03-8P 252280-04-9P  
252280-06-1P 252320-18-6P 252320-22-2P 252320-26-6P 252320-34-6P  
252320-38-0P 252320-41-5P 252320-45-9P 252320-50-6P 252320-84-6P  
252321-18-9P 252328-65-7P 252328-66-8P 252328-70-4P 252328-72-6P  
252328-74-8P 252328-75-9P 252328-77-1P 252570-65-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

IT 252259-87-3P 252259-88-4P 252259-89-5P 252259-91-9P 252259-92-0P  
252259-93-1P 252259-94-2P 252259-98-6P 252260-00-7P  
**252260-03-0P** 252260-04-1P 252260-06-3P 252260-07-4P  
252260-08-5P 252260-09-6P 252260-10-9P 252260-11-0P 252260-12-1P  
252260-14-3P 252260-15-4P 252260-16-5P 252260-19-8P 252260-20-1P  
252260-21-2P 252260-22-3P 252260-23-4P 252260-25-6P 252260-27-8P  
252260-28-9P 252260-29-0P 252260-30-3P 252260-32-5P 252260-34-7P  
252279-68-8P 252279-70-2P 252279-71-3P 252279-72-4P 252279-73-5P  
252279-75-7P 252279-77-9P 252279-78-0P 252279-79-1P 252279-80-4P  
252279-82-6P 252279-84-8P 252279-85-9P 252279-86-0P 252279-87-1P  
252279-88-2P 252279-90-6P 252279-91-7P 252279-92-8P 252279-93-9P  
252279-94-0P 252279-95-1P 252279-96-2P 252279-97-3P 252279-99-5P  
252280-00-5P 252280-01-6P 252280-05-0P 252280-07-2P 252280-08-3P  
252280-09-4P 252280-10-7P 252280-11-8P 252280-12-9P 252280-13-0P  
252280-14-1P 252280-15-2P 252280-16-3P 252318-89-1P 252318-91-5P  
252318-93-7P 252318-95-9P 252318-97-1P 252319-00-9P 252319-06-5P  
252320-16-4P 252320-24-4P 252320-29-9P 252320-30-2P 252320-32-4P  
252320-37-9P 252320-39-1P 252320-42-6P 252320-44-8P 252320-47-1P  
252320-48-2P 252320-51-7P 252320-65-3P 252320-74-4P 252320-82-4P  
252320-86-8P 252320-87-9P 252320-88-0P 252320-89-1P 252320-90-4P  
252320-92-6P 252320-93-7P 252320-96-0P 252320-97-1P 252320-99-3P  
252321-15-6P 252321-16-7P 252321-17-8P 252321-20-3P 252321-21-4P  
252321-23-6P 252321-24-7P 252328-62-4P 252328-63-5P 252328-64-6P  
252328-67-9P 252328-68-0P 252328-69-1P 252328-71-5P 252328-73-7P  
252328-76-0P 252328-78-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

IT 75-36-5, Acetyl chloride 76-83-5, Chlorotriphenylmethane 77-76-9,  
2,2-Dimethoxypropane 77-79-2 79-04-9, Chloroacetyl chloride 79-22-1,  
Methyl chloroformate 100-52-7, Benzaldehyde, reactions 104-98-3,  
3-(4-Imidazolyl)acrylic acid 107-21-1D, Ethyleneglycol, resin bound  
108-24-7, Acetic anhydride 109-01-3, N-Methylpiperazine 109-84-2,  
2-Hydroxyethylhydrazine 110-86-1, Pyridine, reactions 110-91-8,  
Morpholine, reactions 111-77-3, 2-(2-Methoxyethoxy)ethanol 111-92-2,  
Di-n-butylamine 123-38-6, Propanal, reactions 177-11-7,  
1,4-Dioxa-8-azaspiro[4,5]decane 288-32-4, 1H-Imidazole, reactions  
288-88-0, 1H-1,2,4-Triazole 369-34-6, 3,4-Difluoroniobenzene  
372-39-4, 3,5-Difluoroaniline 501-53-1, Benzyl chloroformate 502-85-2,  
Butanoic acid, 4-hydroxy-, monosodium salt 540-51-2, 2-Bromoethanol  
541-41-3, Ethyl chloroformate 693-98-1, 2-Methylimidazole 814-68-6,  
Acryloyl chloride 822-36-6, 4-Methylimidazole 872-35-5,

2-Mercaptoimidazole 1003-07-2, 3-Hydroxyisothiazole 1074-59-5,  
 3-(4-Imidazolyl)propionic acid 1445-73-4, N-Methyl-4-piperidone  
 3034-53-5, 2-Bromothiazole 3040-38-8 3251-69-2 3262-72-4,  
 N-BOC-L-serine 3612-20-2, N-Benzyl-4-piperidone 4252-82-8 5570-27-4  
 5728-07-4, 3-Hydroxy-1,2,5-thiadiazole 5736-06-1 5777-20-8,  
 3-Hydroxyisoxazole 6294-89-9, Methyl carbamate 6915-15-7 7126-38-7,  
 3-Cyanopyrrole 7693-46-1, 4-Nitrophenyl chloroformate 10004-44-1,  
 3-Hydroxy-5-methyloxazole 10068-07-2 13831-31-7, Acetoxyacetyl  
 chloride 16024-56-9, 2-(2-Methoxyethoxy)acetic acid 33252-28-7,  
 2-Chloro-5-cyanopyridine 33996-33-7 36394-75-9, S-2-Acetoxypropionyl  
 chloride 45469-93-0 51138-06-8 52386-40-0 52768-17-9,  
 1-(4-Aminophenyl)pyrrole 59032-27-8 60456-23-7, S-Glycidol  
 60456-26-0, R-Glycidyl butyrate 63024-77-1, 3-Chloromethylbenzoyl  
 chloride 63881-16-3 74181-34-3, 2,2-Dimethyl-1,3-dioxan-5-one  
 82796-40-5 87508-42-7 97673-82-0 102045-96-5 104706-47-0,  
 R-3-Pyrrolidinol hydrochloride 114746-70-2 116258-17-4 116561-26-3  
 117924-33-1, Di-tert-butyl N,N-diethylphosphoramidite 122536-77-0  
 149524-30-1 150994-99-3 154590-62-2 162046-38-0 168828-82-8  
 179620-47-4 181997-23-9 181997-26-2 185099-69-8 188975-33-9  
 194351-00-3 195816-25-2 196298-73-4 196299-06-6 205646-91-9  
 218916-64-4, DL-N-BOC-isoserine 252350-02-0 252350-55-3,  
 N-Acetyl-L-isoserine 252350-65-5 252366-06-6 252366-92-0  
 252366-93-1 252366-94-2 252367-08-1 252367-70-7 252367-93-4

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of antibiotic oxazolidinone derivs.)

IT 3068-00-6P, 1,2,4-Butanetriol 93351-55-4P 114458-03-6P 157556-73-5P  
 160446-35-5P 172967-24-7P 178680-96-1P 209960-26-9P 209960-27-0P  
 252320-81-3P 252320-85-7P 252320-89-1DP, resin bound 252320-90-4DP,  
 resin bound 252328-79-3P 252328-80-6P 252328-81-7P 252328-82-8P  
 252328-83-9P 252328-84-0P 252328-85-1P 252328-86-2P 252328-94-2P  
 252328-98-6P 252329-02-5P 252329-06-9P 252329-08-1P 252329-11-6P  
 252329-85-4P 252329-88-7P 252329-91-2P 252330-05-5P 252330-06-6P  
 252330-09-9P 252330-11-3P 252330-13-5P 252330-16-8P 252330-19-1P  
 252330-22-6P 252330-24-8P 252330-27-1P 252336-60-0P 252336-62-2P  
 252336-63-3P 252336-65-5P 252336-66-6P 252336-67-7P 252336-69-9P  
 252336-72-4P 252336-73-5P 252336-75-7P 252336-77-9P 252336-78-0P  
 252336-79-1P 252336-81-5P 252336-82-6P 252336-84-8P 252336-85-9P  
 252336-87-1P 252336-88-2P 252336-89-3P 252336-91-7P 252336-92-8P  
 252336-93-9P 252336-94-0P 252337-01-2P 252337-07-8P 252337-13-6P  
 252337-14-7P 252337-15-8P 252337-16-9P 252337-17-0P 252337-18-1P  
 252337-19-2P 252337-20-5P 252337-21-6P 252337-22-7P 252337-23-8P  
 252337-24-9P 252337-25-0P 252337-28-3DP, resin bound 252337-29-4P  
 252340-70-8P 252340-72-0P 252340-74-2P 252340-76-4P 252340-78-6P  
 252340-82-2P 252340-85-5P 252340-88-8P 252340-90-2P 252340-92-4P  
 252340-95-7P 252340-97-9P 252341-00-7P 252341-02-9P 252342-23-7P  
 252342-30-6P 252342-32-8P 252342-33-9P 252342-34-0P 252342-35-1P  
 252342-36-2P 252344-71-1P 252344-94-8P 252345-06-5P 252345-14-5P  
 252345-22-5P 252350-38-2P 252350-53-1P 252570-66-4P 252570-67-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of antibiotic oxazolidinone derivs.)

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IT Skin

(dermis; preservation of collagen based tissues)

IT Antibiotics

Antimicrobial agents

Artery

Buffers

Detergents

Glycosylation

Maillard reaction

Nerve  
Preservation solutions (tissue)  
Transplant and Transplantation  
Vein  
    (preservation of collagen based tissues)

IT Collagens, biological studies  
Enzymes, biological studies  
Flavonoids  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
    (preservation of collagen based tissues)

IT Cryopreservation  
    (tissue; preservation of collagen based tissues)

IT Heart  
    (valve; preservation of collagen based tissues)

IT Umbilical cord  
    (vessels; preservation of collagen based tissues)

IT .50-81-7, L-Ascorbic acid, biological studies 59-02-9, .alpha.-Tocopherol  
60-00-4, Edta, biological studies 67-68-5, Dmso, biological studies  
70-18-8, Reduced glutathione, biological studies 79-17-4, Aminoguanidine  
83-44-3, Deoxycholic acid 83-86-3, Phytic acid 124-07-2,  
Octanoic acid, biological studies 138-14-7, Deferoxamine mesylate  
7647-14-5, Sodium chloride, biological studies 9001-05-2, Catalase  
9001-84-7, Phospholipase A 9001-86-9, Phospholipase C 9003-98-9, DNase  
9036-19-5, tert-Octylphenoxypropylethoxyethanol 9050-36-6, Maltodextrin  
9054-89-1, Superoxide dismutase 29836-26-8, n-Octyl .beta.-D-  
glucopyranoside 53188-07-1, 6-Hydroxy-2,5,7,8-tetramethylchroman-2-  
carboxylic acid 75621-03-3, Chaps  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
    (preservation of collagen based tissues)

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Bactericides, Disinfectants, and Antiseptics  
    (prepn. of copper, tin, and zinc salts of saccharide derivs. for  
    personal care products)

IT Tooth  
    (disease, prevention of caries; prepn. of copper, tin, and zinc salts  
    of saccharide derivs. for personal care products)

IT Gingiva  
    (disease, gingivitis, prevention of gingivitis; prepn. of copper, tin,  
    and zinc salts of saccharide derivs. for personal care products)

IT Mouth  
    (disease, halitosis, prevention of halitosis; prepn. of copper, tin,  
    and zinc salts of saccharide derivs. for personal care products)

IT Tooth  
    (disease, plaque, prevention of dental plaque; prepn. of copper, tin,  
    and zinc salts of saccharide derivs. for personal care products)

IT 170483-97-3P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
    (prepn. of copper, tin, and zinc salts of saccharide derivs. for  
    personal care products)

IT 170483-98-4  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
    (prepn. of copper, tin, and zinc salts of saccharide derivs. for  
    personal care products)

IT 3671-99-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
    (prepn. of copper, tin, and zinc salts of saccharide derivs. for  
    personal care products)

IT 56-73-5DP, Glucose-6-phosphate, Sn and Cu salts 59-56-3DP,  
Glucose-1-phosphate, Sn and Cu salts **488-69-7DP**,  
Fructose-1,6-diphosphate, Sn and Cu salts 643-13-0DP,  
Fructose-6-phosphate, Sn and Cu salts 7440-31-5DP, Tin, salts of  
saccharide derivs. 7440-50-8DP, Copper, salts of saccharide derivs.  
7440-66-6DP, Zinc, salts of saccharide derivs. 10139-18-1DP,  
Glucose-1,6-diphosphate, Sn and Cu salts 15978-08-2DP,  
Fructose-1-phosphate, Sn and Cu salts  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of copper, tin, and zinc salts of saccharide derivs. for  
personal care products)

L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Rice  
(Pseudomonas glumae infection of spikelets of)

IT Microorganism growth  
(by Pseudomonas glumae, in rice spikelets)

IT Carbohydrates and Sugars, biological studies  
RL: BIOL (Biological study)  
(growth of Pseudomonas glumae in media contg., starch biosynthesis by  
rice grains in relation to)

IT Pseudomonas glumae  
(rice spikelets infection with)

IT Plant growth and development  
(maturation, Pseudomonas glumae infection of rice spikelets in relation  
to)

IT 14698-29-4, Oxolinic acid  
RL: BIOL (Biological study)  
(against Pseudomonas glumae infection of rice spikelets)

IT 50-99-7, Glucose, biological studies 56-73-5, Glucose-6-phosphate  
57-04-5, Dihydroxyacetone phosphate 57-48-7, Fructose, biological  
studies 57-50-1, Sucrose, biological studies 59-56-3,  
Glucose-1-phosphate 133-89-1, UDP-glucose **488-69-7**,  
Fructose-1,6-bisphosphate 643-13-0, Fructose-6-phosphate 5746-57-6,  
L.-alpha.-Glycerophosphate 9005-25-8, Starch, biological studies  
RL: BIOL (Biological study)  
(growth of Pseudomonas glumae in media contg., starch biosynthesis by  
rice grains in relation to)

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IT Glycolysis  
(by Staphylococcus aureus, NMR of)

IT Staphylococcus aureus  
(glucose metab. and lactate transport in, carbon-13 and phosphorus-31  
NMR of)

IT Nuclear magnetic resonance  
(of carbon-13 and phosphorus-31, of glucose metab. and lactate  
transport in Staphylococcus aureus)

IT Biological transport  
(of lactate, by Staphylococcus aureus, NMR of)

IT Nucleotides, biological studies  
RL: PROC (Process)  
(of Staphylococcus aureus, NMR of)

IT 7439-96-5, biological studies  
RL: BIOL (Biological study)  
(absorption of, by Staphylococcus aureus, NMR in relation to)

IT 64-17-5, biological studies 69-65-8  
RL: FORM (Formation, nonpreparative)  
(formation of, in glucose metab. by Staphylococcus aureus, NMR of)

IT 7782-44-7, biological studies  
RL: BIOL (Biological study)  
(glucose metab. by Staphylococcus aureus response to, NMR in relation

to)

IT 50-99-7, biological studies  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, by *Staphylococcus aureus*, NMR of)

IT 488-69-7 9041-38-7 14265-44-2, biological studies  
RL: PROC (Process)  
(of *Staphylococcus aureus*, NMR of)

IT 50-21-5, biological studies  
RL: BIOL (Biological study)  
(transport of, by *Staphylococcus aureus*, NMR of)

IT 124-07-2, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(*Staphylococcus aureus* response to, NMR of)

L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT *Candida albicans*  
(infection with, fructose diphosphate effect on, phagocytosis stimulation in relation to)

IT Phagocytosis  
(stimulation of, fructose diphosphate effect on *Candida albicans* infections in relation to)

IT 488-69-7  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(antimicrobial activity of, in *Candida albicans* infection, phagocytosis stimulation and ATP in relation to)

IT 56-65-5, biological studies  
RL: BIOL (Biological study)  
(fructose diphosphate effect on *Candida albicans* infections in relation to)

L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT *Saccharomyces cerevisiae*  
(H<sub>2</sub>SO<sub>3</sub> effect on)

IT *Escherichia coli*  
(sulfurous acid effect on)

IT Respiration, plant  
(sulfurous acid effect on, by *Escherichia coli* and *Saccharomyces cerevisiae*)

IT Coenzyme A, S-succinate  
(formation from 2-oxoglutaric acid by *Escherichia coli*, sulfurous acid effect on)

IT 1981-49-3, Glyceric acid, anhydride with H<sub>3</sub>PO<sub>4</sub>, 3-phosphate  
(formation from 3-phosphoglyceraldehyde by *Saccharomyces cerevisiae*, sulfurous acid effect on)

IT 328-42-7, Oxalacetic acid  
(formation of, from isocitric and malic acids, by *Escherichia coli*, sulfurous acid effect on)

IT 591-59-3, Glyceraldehyde, 3-phosphate  
(glyceric acid diphosphate formation from, by *Saccharomyces cerevisiae*, sulfurous acid effect on)

IT 6915-15-7, Malic acid  
(oxalacetic acid formation from, by *Escherichia coli*, sulfurous acid effect on)

IT 7782-99-2, Sulfurous acid  
(*Escherichia coli* and *Saccharomyces cerevisiae* response to)

IT 328-50-7, Glutaric acid, 2-oxo-  
(S-succinyl coenzyme A formation from, by *Escherichia coli*, sulfurous acid effect on)

=>  
Uploading krishnan1.str

L10 STRUCTURE UPLOADED

=> file reg  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 213.82 414.06  
  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL  
ENTRY SESSION  
CA SUBSCRIBER PRICE -11.07 -19.53

FILE 'REGISTRY' ENTERED AT 16:10:16 ON 13 MAY 2003  
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STRUCTURE FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3  
DICTIONARY FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3

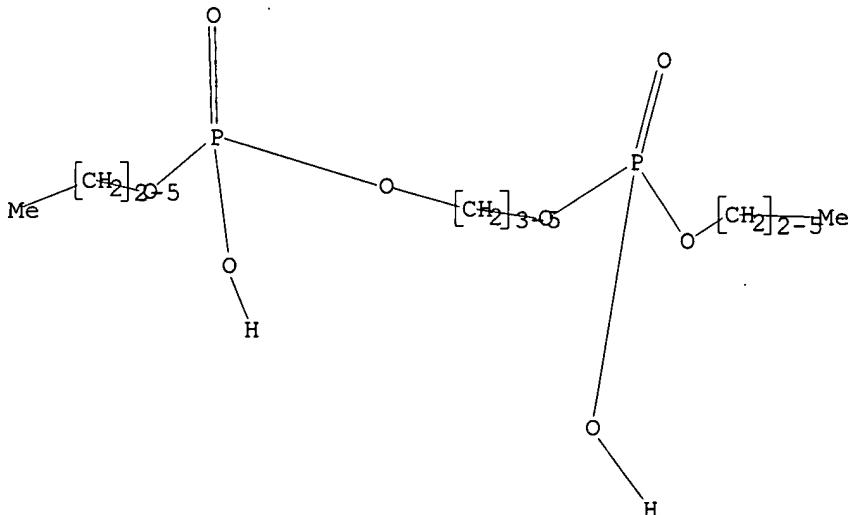
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PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d 110  
L10 HAS NO ANSWERS  
L10 STR



Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 451 TO ITERATE

100.0% PROCESSED 451 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 7746 TO 10294  
PROJECTED ANSWERS: 0 TO 0

L11 0 SEA SSS SAM L10

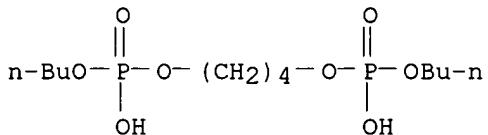
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FULL SCREEN SEARCH COMPLETED - 9285 TO ITERATE

100.0% PROCESSED 9285 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.02

L12 1 SEA SSS FUL L10

=> d scan

L12 1 ANSWERS REGISTRY COPYRIGHT 2003 ACS  
IN Phosphoric acid, P,P'-1,4-butanediyl P,P'-dibutyl ester (9CI)  
MF C12 H28 O8 P2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	148.15	562.21
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
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FILE COVERS 1907 - 13 May 2003 VOL 138 ISS 20  
FILE LAST UPDATED: 12 May 2003 (20030512/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l12  
L13                1 L12

=> d ibib abs hitstr

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2002:185692 CAPLUS  
DOCUMENT NUMBER: 136:236873  
TITLE: Protonated antimicrobial compounds  
INVENTOR(S): Dale, Roderic M. K.; Gatton, Steven L.; Arrow, Amy;  
Thompson, Terry  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U.S.  
Ser. No. 281,858.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002032164	A1	20020314	US 2001-847654	20010503
US 6211349	B1	20010403	US 1998-222009	19981230
WO 2002089581	A1	20021114	WO 2002-US13910	20020503
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1998-222009	A2 19981230
			US 1999-281858	A2 19990331
			US 2001-847654	A 20010503

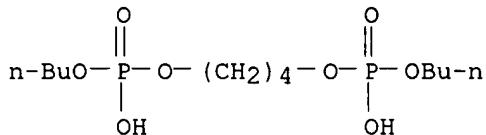
OTHER SOURCE(S): MARPAT 136:236873  
AB The present invention provides protonated compds. X-Y-Z (Y = O, P, C; X, Z = end blocking groups preventing degrdn. of the mol. and providing stability) having antimicrobial activity and a sanitizing compn. comprising a protonated compd. and a metal salt of a carboxylic acid. The protonated compds. and compns. provide efficacious antimicrobial activity against resistant strains of bacteria and opportunistic fungi. For

example, the s.c. administration of compds. Nu-2, Nu-3, Nu-4, and Nu-5 (12 mg/mL) were effective in attenuating the incidence of infection of burn wounds in a mice model, a ribose deriv. Nu-4 being the most efficacious providing 100% survival.

IT 403717-08-8  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(protonated antimicrobial compds. and compns.)

RN 403717-08-8 CAPLUS

CN Phosphoric acid, P,P'-1,4-butanediyl P,P'-dibutyl ester (9CI) (CA INDEX NAME)



=> file beilstein  
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
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FULL ESTIMATED COST 5.37 567.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION

CA SUBSCRIBER PRICE -0.65 -20.18

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

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FILE LAST UPDATED ON APRIL 10, 2003

FILE COVERS 1771 TO 2003.

\*\*\* FILE CONTAINS 8,643,097 SUBSTANCES \*\*\*

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=> d his

(FILE 'HOME' ENTERED AT 15:38:34 ON 13 MAY 2003)

FILE 'CAPLUS, MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

L1 153627 S ANTIMICROB? OR ANTIBACTER?  
L2 1795 S L1 AND PHOSPHOR?  
L3 54 S L1 AND PHOSPHOROUS  
L4 13 S L3 AND PHOSPHOR?/TI

FILE 'STNGUIDE' ENTERED AT 15:43:36 ON 13 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:49:01 ON 13 MAY 2003

L5 STRUCTURE uploaded  
L6 STRUCTURE uploaded  
L7 50 S L6  
L8 3173 S L6 FULL

FILE 'CPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003

L9 67 S L8 AND ( ANTIMICROB? OR ANTIBACTER?)  
L10 STRUCTURE uploaded

FILE 'REGISTRY' ENTERED AT 16:10:16 ON 13 MAY 2003

L11 0 S L10  
L12 1 S L10 FULL

FILE 'CAPLUS' ENTERED AT 16:10:51 ON 13 MAY 2003

L13                          1 S L12

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

=> s 110 full  
FULL SEARCH INITIATED 16:12:29 FILE 'BEILSTEIN'  
FULL SCREEN SEARCH COMPLETED - 2206 TO ITERATE

100.0% PROCESSED 2206 ITERATIONS  
SEARCH TIME: 00.00.12

## 0 ANSWERS

L14 0 SEA SSS FUL L10

=> s 16 full  
FULL SEARCH INITIATED 16:13:02 FILE 'BEILSTEIN'  
FULL SCREEN SEARCH COMPLETED - 12978 TO ITERATE

87.9% PROCESSED 11407 ITERATIONS

1112 ANSWERS

100.0% PROCESSED 12978 ITERATIONS  
SEARCH TIME: 00:00:25

1314 ANSWERS

L15 1314 SEA SSS FUL T-6

=> d ibib abs hitstr 2-22 it

L19 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2002:18652 CAPLUS  
DOCUMENT NUMBER: 136:314466  
TITLE: Utilization of selected dissolved organic  
phosphorus compounds by bacteria in  
lake water under non-limiting orthophosphate  
conditions  
AUTHOR(S): Siuda, W.; Chrost, R. J.  
CORPORATE SOURCE: Department of Microbial Ecology, Institute of  
Microbiology, University of Warsaw, Warsaw, PL-02-096,  
Pol.  
SOURCE: Polish Journal of Environmental Studies (2001), 10(6),  
475-483  
CODEN: PJESE2; ISSN: 1230-1485

PUBLISHER: HARD Publishing Co.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB This study presents results on the availability of various org. P compds. for bacteria from mesotrophic Lake Constance. The rates of hydrolysis of all tested compds. added to the analyzed lake water samples did not correlate with assimilation of liberated inorg. P.  $\beta$ -Glycerophosphate and AMP were the most efficiently hydrolyzed by bacterial phosphohydrolytic enzymes. The highest specific P uptake was found in water samples supplemented with nucleotides. The fastest increase in bacterial nos. was obsd. in water samples enriched with DNA, RNA, ATP and phytin. Anal. of discrepancies between rates of hydrolysis, specific P uptake and bacterial growth rates in samples enriched with various org. P compds. suggested that bacterial phosphatases participated substantially in processes of dissolved org. C compd. decompn. in lake water, whereas 5'-nucleotidase was mainly responsible for bacterial P demand.

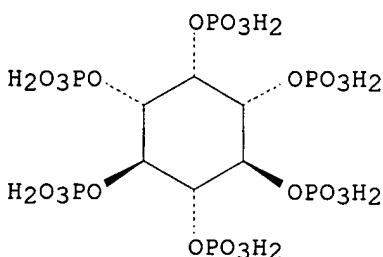
IT 3615-82-5, Phytin

RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(utilization of selected dissolved org. phosphorus by bacteria  
in lake water under non-limiting orthophosphate conditions)

RN 3615-82-5 CAPLUS

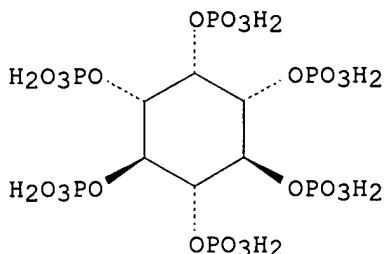
CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



x Ca

x Mg



●x Ca

●x Mg

- IT Lake waters  
(mesotrophic; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)
- IT Enzymes, processes  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process) (phosphohydrolytic; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)
- IT DNA  
Nucleotides, processes  
RNA  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process) (utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)
- IT 7723-14-0, Phosphorus, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (dissolved org.; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)
- IT 56-65-5, ATP, processes 56-73-5, Glucose-6-phosphate 61-19-8, AMP, processes 3615-82-5, Phytin 9027-73-0, 5'-Nucleotidase 17181-54-3, .beta.-Glycerophosphate  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process) (utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)
- REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:930591 CAPLUS  
 DOCUMENT NUMBER: 136:36690  
 TITLE: Effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks  
 AUTHOR(S): Yonemochi, Chisato; Takagi, Hisao; Arima, Yasushi; Okada, Toru  
 CORPORATE SOURCE: Japan Scientific Feeds Association, Chiyoda-Ku, Tokyo, 101-0062, Japan  
 SOURCE: Journal of Poultry Science (2001), 38(4), 317-323  
 CODEN: JPSOBX  
 PUBLISHER: Japan Poultry Science Association

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The reported effects of dietary supplemented **microbial** phytase on the utilization of phytate phosphorus (pP) differ widely by investigators. In order to clarify the differences, the contents of total phosphorus (P) and pP in commonly used five plant feedstuffs, corn (C), soybean meal (SM), defatted rice bran (RB), wheat bran (WB), and high level flour wheat bran (FWB) were detd., and the effect of **microbial** phytase on utilization of pP in these feedstuffs was studied using male broiler chicks. The contents of total P in plant feedstuffs were detd. to be 0.25, 0.67, 2.81, 1.04, and 0.54%, and those of pP to be 0.15, 0.31, 2.02, 0.71, and 0.32% in C, SM, RB, WB, and FWB, resp. The ratios of pP to total P ranged from 47.2% (for SM) to 71.8% (for RB). The exptl. diets were formulated using C, SM, RB, WB, or FWB as a sole source of pP. Male broiler chicks were fed the diets supplemented by 0 or 500 phytase units/kg of diet **microbial** phytase for 10 days from 7 to 17 days of age. There were large differences in pP retention among plant feedstuffs without **microbial** phytase. Esp. the retention was low (5.4%) in the C and high (73.4%) in the WB. The pP retention in SM, RB and FWB were 52.3, 42.5, and 51.1%, resp. On the other hand, with the addn. of **microbial** phytase, pP retention in C, SM, RB, WB, and FWB increased to 69.9, 75.0, 78.6, 86.6, and 84.1%, resp.

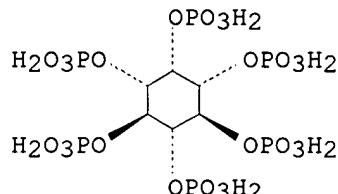
IT 83-86-3, Phytic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Rice (*Oryza sativa*)

(bran, defatted; effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks)

IT Wheat flour

(bran; effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks)

IT Chicken (*Gallus domesticus*)

(broiler; effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks)

IT Corn

Feed

Feeding experiment

Soybean meal

Wheat bran

(effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks)

IT Bran

(rice, defatted; effects of **microbial** phytase on phytate phosphorus utilization in plant feedstuffs for broiler chicks)

IT 37341-58-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); FFD

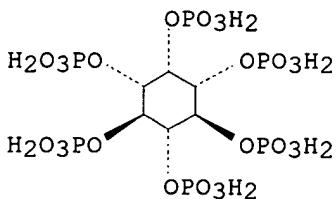
(Food or feed use); BIOL (Biological study); USES (Uses)  
(Phytase Kyowa; effects of **microbial** phytase on phytate  
phosphorus utilization in plant feedstuffs for broiler chicks)  
IT 83-86-3, Phytic acid 7723-14-0, Phosphorus, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

L19 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2001:746487 CAPLUS  
DOCUMENT NUMBER: 136:150501  
TITLE: Dietary **microbial** phytase supplementation  
and the utilization of **phosphorus**, trace  
minerals and protein by rainbow trout [Oncorhynchus  
mykiss (Walbaum)] fed soybean meal-based diets  
AUTHOR(S): Sugiura, S. H.; Gabaudan, J.; Dong, F. M.; Hardy, R.  
W.  
CORPORATE SOURCE: Hagerman Fish Culture Experiment Station, University  
of Idaho, Hagerman, ID, USA  
SOURCE: Aquaculture Research (2001), 32(7), 583-592  
CODEN: AQREFC; ISSN: 1355-557X  
PUBLISHER: Blackwell Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Effects of thermal and enzymic treatments of soybean meal on apparent  
absorption of total P, phytate P, N (protein), ash, Ca, Mg, Cu, Fe, Mn, Sr  
and Zn were examd. using rainbow trout, Oncorhynchus mykiss (Walbaum), as  
the test species. Absorption of the test nutrients was estd. using  
yttrium as an inert non-absorbable indicator. Thermal treatments  
(microwaving, dry roasting, steam heating, cooking) had no measurable  
effect on the apparent absorption of P and other minerals. Phytase  
supplementation increased the apparent absorption of P, N (protein), ash,  
calcium, Mg, Cu, Fe, Sr and Zn in low-ash diets contg. soybean meal, but  
had little effect in high-ash diets contg. both soybean and fish meal. In  
low-ash diets, the apparent absorption of P increased in accord with the  
level of phytase added to the diet, from 27% (no phytase added) up to 90%  
(phytase added, 4000 units kg<sup>-1</sup> diet) or 93% (predigested with phytase,  
200 units kg<sup>-1</sup> soybean meal). In high-ash diets, dietary acidification  
with citric acid decreased the effect of phytase, whereas in low-ash  
diets, acidification markedly increased the effect of the enzyme.  
Excretion of P in the feces of fish fed a low-ash diet contg.  
phytase-treated soybean meal was 0.32 g per kg diet consumed, a 95%-98%  
redn. compared with P excretion by fish consuming com. trout feeds.

IT 83-86-3, Phytic acid  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial** phytase supplementation and the  
utilization of P, trace minerals and protein by rainbow trout fed  
soybean meal-based diets)

RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Aquaculture  
Digestibility  
Feeding experiment  
Heat treatment  
Nutrition, animal  
*Oncorhynchus mykiss*  
Soybean meal  
(dietary **microbial phytase** supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Mineral elements, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial phytase** supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Diet  
(supplements; dietary **microbial phytase** supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Biological transport  
(uptake; dietary **microbial phytase** supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT 77-92-9, Citric acid, biological studies **83-86-3**, Phytic acid  
7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-24-6, Strontium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies 7727-37-9, Nitrogen, biological studies 37341-58-5, Phytase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial phytase** supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

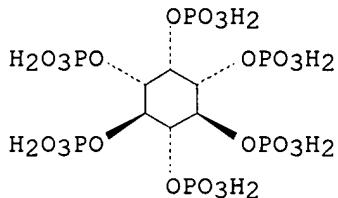
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2001:209680 CAPLUS  
DOCUMENT NUMBER: 134:310174  
TITLE: Nonphytate **phosphorus** requirement and **phosphorus** excretion of broiler chicks fed diets composed of normal or high available phosphate corn with and without **microbial phytase**  
AUTHOR(S): Waldroup, P. W.; Kersey, J. H.; Saleh, E. A.; Fritts, C. A.; Yan, F.; Stilborn, H. L.; Crum, R. C., Jr.; Raboy, V.  
CORPORATE SOURCE: Poultry Science Department, University of Arkansas, Fayetteville, AR, 72701, USA  
SOURCE: Poultry Science (2000), 79(10), 1451-1459  
CODEN: POSCAL; ISSN: 0032-5791  
PUBLISHER: Poultry Science Association, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A study was conducted to evaluate the ability of the young (0 to 3 wk) broiler chicken to utilize the P provided by a high available P corn [HAPC; 0.27% total P and 0.17% nonphytate P] in comparison with yellow dent corn (YDC; 0.23% total P and 0.03% nonphytate P), and to det. the extent to which supplementation with exogenous phytase enzyme could reduce the demands for dietary P and subsequently reduce P excretion. Diets prep'd. using the two types of corn differed in the amt. of phytate-bound P, with the HAPC diets contg. approx. 50% less phytate-bound P. Treatment

diets were prep'd. by varying the amt. of dicalcium phosphate, and ranged from 0.10 to 0.50% nonphytate P for YDC diets, and from 0.18 to 0.50% nonphytate P for HAPC diets. Sublots of each diet were supplemented with 800 units/kg phytase. Each diet was fed to six pens of five male chicks of a com. broiler strain from 1 to 21 d of age. Regression anal. was used to est. nonphytate P requirements for each corn type with and without phytase supplementation. The greatest need for nonphytate P was for max. tibia ash, with requirements of 0.39, 0.29, 0.37, and 0.32% in diets with YDC, YDC plus phytase, HAPC, and HAPC plus phytase, resp. Addn. of phytase liberated approx. 50% of the phytate-bound P from each diet. These levels were sufficient to support body wt., feed conversion, and livability. Fecal P content of broilers fed diets with YDC at the NRC (1994) recommended level of 0.45% nonphytate P was 1.21%, whereas at the resp. requirement points indicated above, the P content was 1.09, 0.87, 0.78, and 0.64% in feces from broilers fed diets with YDC, YDC plus phytase, HAPC, and HAPC plus phytase, resp. Thus, fecal P output could be reduced while maintaining optimum performance by the use of reduced dietary nonphytate P, introduction of HAPC, and phytase supplementation. One of the greatest benefits of phytase supplementation appeared to be maintaining livability at lower dietary levels of nonphytate P.

IT   **83-86-3**, Phytic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
       (nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial phytase**)  
 RN   83-86-3 CAPLUS  
 CN   myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.

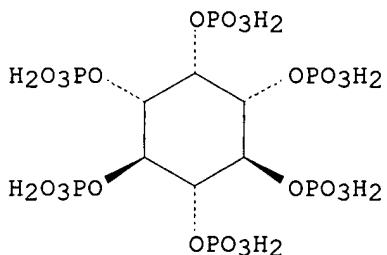


IT   Chicken (*Gallus domesticus*)  
 Corn  
 Feces  
 Growth, animal  
 Nutrition, animal  
       (nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial phytase**)  
 IT   **83-86-3**, Phytic acid 37341-58-5, Phytase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
       (nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial phytase**)  
 IT   7723-14-0, Phosphorus, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
       (nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial phytase**)

REFERENCE COUNT:           27       THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:635249 CAPLUS  
 DOCUMENT NUMBER: 134:41575  
 TITLE: Effects of microbial phytase on growth and utilization of phosphorus in *Carassius auratus gibelio*  
 AUTHOR(S): Yu, Feng-Nian; Wang, Dao-Zun  
 CORPORATE SOURCE: Shanghai Fisheries University, Shanghai, 200090, Peop. Rep. China  
 SOURCE: Zhongguo Shuichan Kexue (2000), 7(2), 106-109  
 CODEN: ZSKEFS; ISSN: 1005-8737  
 PUBLISHER: Zhongguo Shuichan Kexue Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Microbial phytase was added to the goldfish (*Carassius auratus gibelio*) feed at 500 or 1000 U/kg. The effects of added phytase on in vitro digestion of phytate in soybean meal/fish meal based diets were detd. After in vitro digestion with 500 or 1000 U phytase/kg feed the phytin-P contents decreased from 2.92 to 1.10 and 0.56% in feed without added monocalcium phosphate and from 2.94 to 1.11 and 0.58% in feed with 0.9% added monocalcium phosphate. The effects on fish growth parameters, body compn. (protein, lipid, total P), and P metab. were analyzed.  
 IT 3615-82-5, Phytin  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (dietary microbial phytase additive effects on growth and phosphorus utilization in *Carassius auratus gibelio* goldfish)  
 RN 3615-82-5 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
 (CA INDEX NAME)

Relative stereochemistry.



● x Ca

● x Mg

IT Goldfish (*Carassius auratus gibelio*)  
 Nutrition, animal  
 (dietary microbial phytase additive effects on growth and phosphorus utilization in *Carassius auratus gibelio* goldfish)  
 IT Lipids, biological studies  
 Proteins, general, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (dietary microbial phytase additive effects on growth and

phosphorus utilization in Carassius auratus gibelio goldfish)  
IT 7723-14-0, Phosphorus, biological studies  
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
(dietary microbial phytase additive effects on growth and phosphorus utilization in Carassius auratus gibelio goldfish)

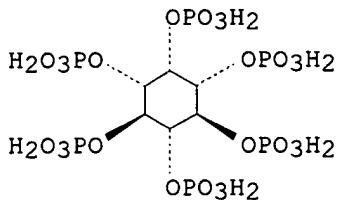
IT 3615-82-5, Phytin 37341-58-5, Phytase  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(dietary microbial phytase additive effects on growth and phosphorus utilization in Carassius auratus gibelio goldfish)

L19 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2000:444569 CAPLUS  
DOCUMENT NUMBER: 133:266003  
TITLE: Response of broiler chickens to microbial phytase supplementation as influenced by dietary phytic acid and non-phytate phosphorus levels. II. Effects on apparent metabolizable energy, nutrient digestibility and nutrient retention  
AUTHOR(S): Ravindran, V.; Cabahug, S.; Ravindran, G.; Selle, P. H.; Bryden, W. L.  
CORPORATE SOURCE: Department of Animal Science, University of Sydney, Camden, Australia  
SOURCE: British Poultry Science (2000), 41(2), 193-200  
CODEN: BPOSA4; ISSN: 0007-1668  
PUBLISHER: Carfax Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB 1. Male broilers (n=900) were fed on wheat-sorghum-soybean meal based diets contg. 3 concns. of phytic acid (10.4, 13.2 and 15.7 g/kg; equiv. to 2.9, 3.7 and 4.4 g/kg phytate P), 2 concns. of non-phytate (or available) phosphorus (2.3 and 4.5 g/kg) and 3 concns. of microbial phytase (0, 400 and 800 FTU/kg) from day 7 to 25 post-hatch. The dietary concns. of phytic acid were manipulated by the inclusion of rice pollards. All diets contained celite (20 g/kg) as a source of acid-insol. ash. 2. The apparent metabolisable energy (AME) concns. of the diets were detd. using a classical total collection procedure during the 3rd week of the trial. On d 25, digesta from the terminal ileum were collected and analyzed for phosphorus, nitrogen and amino acids. Nutrient digestibilities were calcd. using acid-insol. ash as the indigestible marker. 2. Ileal digestibilities of nitrogen and essential amino acids were neg. influenced by increasing dietary levels of phytic acid but these neg. effects were overcome by the addn. of phytase. 3. Supplemental phytase increased AME, ileal digestibilities of phosphorus, nitrogen and amino acids and the retention of dry matter, phosphorus and nitrogen in broilers. There were no differences in the phytase responses between addns. of 400 and 800 FTU/kg. 4. The responses in all variables, except AME, were greater in low non-phytate phosphorus diets. 5. In the case of AME, the response to added phytase was greater in adequate non-phytate phosphorus diets. Supplemental phytase increased AME values from 13.36 to 13.54 MJ/kg dry matter in low non-phytate phosphorus diets and from 12.66 to 13.38 MJ/kg dry matter in adequate non-phytate phosphorus diets.

IT 83-86-3, Phytic acid  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(response of broiler chickens to microbial phytase supplementation as influenced by dietary phytic acid and non-phytate P levels)

RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT    Chicken (*Gallus domesticus*)  
 Dietary energy  
 Digestibility  
 Feeding experiment  
 Nutrients  
 Nutrition, animal  
     (response of broiler chickens to **microbial** phytase  
     supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)

IT    Amino acids, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
     (response of broiler chickens to **microbial** phytase  
     supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)

IT    83-86-3, Phytic acid    37341-58-5, Phytase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); BIOL (Biological study)  
     (response of broiler chickens to **microbial** phytase  
     supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)

IT    56-87-1, L-Lysine, biological studies    61-90-5, Leu, biological studies  
 63-91-2, L-Phenylalanine, biological studies    71-00-1, L-Histidine,  
 biological studies    72-18-4, L-Valine, biological studies    72-19-5,  
 L-Threonine, biological studies    73-32-5, L-Isoleucine, biological  
 studies    74-79-3, L-Arginine, biological studies    7723-14-0, Phosphorus,  
 biological studies    7727-37-9, Nitrogen, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
     (response of broiler chickens to **microbial** phytase  
     supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)

REFERENCE COUNT:    34    THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER:    2000:90208 CAPLUS  
 DOCUMENT NUMBER:    133:30143  
 TITLE:               Response of broiler chickens to **microbial**  
                       phytase supplementation as influenced by dietary  
                       phytic acid and non-phytate **phosphorus**  
                       contents. I. Effects on bird performance and toe ash  
 AUTHOR(S):           Cabahug, S.; Ravindran, V.; Selle, P. H.; Bryden, W.  
 L.  
 CORPORATE SOURCE:    University of Sydney, Camden, Australia  
 SOURCE:              British Poultry Science (1999), 40(5), 660-666  
 CODEN: BPOSA4; ISSN: 0007-1668  
 PUBLISHER:           Carfax Publishing  
 DOCUMENT TYPE:      Journal  
 LANGUAGE:            English  
 AB    Seven-day old male broiler chickens (n=900) were fed wheat/sorghum/soybean  
 meal-based diets contg. 3 levels of phytic acid (10.4, 13.2, and 15.7

g/kg; equiv. to 2.9, 3.7, and 4.4 g phytate P/kg), 2 levels of non-phytate P (2.3 and 4.5 g/kg), and 3 levels of **microbial** phytase (Natuphos 5000 L; 0, 400, and 800 FTU/kg) in a 19-day trial. The dietary phytic acid contents were manipulated by the inclusion of rice pollard (bran). Each diet was fed to 5 pens (10 birds/pen) from 7 to 25 days of age. Records of body wt., feed intake, and mortality were kept. On day 25, toe samples were taken from all surviving birds for toe (bone) ash measurements. Increasing the dietary phytic acid levels neg. influenced the body wt. gain, feed intake, and feed/gain ratio. These adverse effects were partially overcome by the addn. of **microbial** phytase. Supplemental phytase improved body wt. gains and feed efficiency of broilers, but the magnitude of the responses was greater with low non-phytate P diets, resulting in significant non-phytate phosphorus .times. phytase interactions. The toe ash contents were improved by phytase addn., but the response was greater with the highest concn. of phytic acid, resulting in a significant phytic acid .times. phytase interaction. Responses were also greater with low non-phytate P diets as indicated by significant non-phytate phosphorus .times. phytase interaction. There was very little difference in the responses to phytase addns. at 400 and 800 FTU/kg. The performance responses to added phytase in birds fed adequate non-phytate P diets provide evidence for the influence of the enzyme on animal performance independent of its effect on P availability.

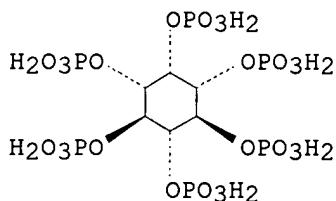
IT 83-86-3, Phytic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Chicken (*Gallus domesticus*)

Digestibility

Feeding experiment

Nutrition, animal

(dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)

IT 83-86-3, Phytic acid 7723-14-0, Phosphorus, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)

IT 37341-58-5, Natuphos

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1999:15185 CAPLUS  
 DOCUMENT NUMBER: 130:65765  
 TITLE: Influence of **microbial** and native wheat phytase on the **phosphorus** utilization in broilers  
 AUTHOR(S): Oloffs, Kerstin; Dolbusin, A.; Jeroch, H.  
 CORPORATE SOURCE: Inst. Tierernaehrung Vorratshaltung,  
 Martin-Luther-Univ., Halle/Saale, D-06108, Germany  
 SOURCE: Archiv fuer Gefluegelkunde (1998), 62(6), 260-263  
 CODEN: AGEFAB; ISSN: 0003-9098  
 PUBLISHER: Verlag Eugen Ulmer GmbH & Co.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German

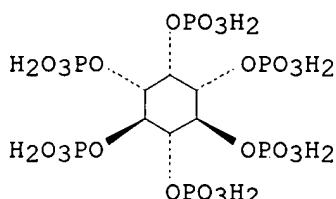
AB The influence of native and **microbial** wheat phytase was tested on the P utilization of broilers (31-35 days old) by giving them feed mixts. (97.5% wheat) without or with varying dosages of native wheat phytase or **microbial** phytase (ZY 98). All other groups showed an increase in P utilization, which is a clear proof of the effect of native as well as of **microbial** phytase on the P utilization of the broiler. The effectiveness of the **microbial** phytase was higher than that of the native one.

IT 83-86-3  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (microbial and native wheat phytase effect on the P utilization in broilers)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.

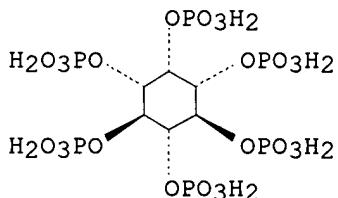


- IT Feed additives  
 Feeding experiment  
 Nutrition, animal  
 Poultry  
 (microbial and native wheat phytase effect on the P utilization in broilers)
- IT 37341-58-5, Phytase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (microbial and native wheat phytase effect on the P utilization in broilers)
- IT 83-86-3 7723-14-0, Phosphorus, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (microbial and native wheat phytase effect on the P utilization in broilers)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1998:346467 CAPLUS  
 DOCUMENT NUMBER: 129:81048  
 TITLE: Phytate phosphorus hydrolysis by microbial phytase in corn-soybean meal diets for pigs  
 AUTHOR(S): Liu, Jiazhong  
 CORPORATE SOURCE: Univ. of Missouri, Columbia, MO, USA  
 SOURCE: (1996) 176 pp. Avail.: UMI, Order No. DA9821350  
 From: Diss. Abstr. Int., B 1998, 59(1), 5  
 DOCUMENT TYPE: Dissertation  
 LANGUAGE: English  
 AB Unavailable  
 IT 83-86-3  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (phytate phosphorus hydrolysis by microbial phytase in  
 corn-soybean meal diets for pigs)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Nutrition, animal  
 Swine  
 (phytate phosphorus hydrolysis by microbial phytase in  
 corn-soybean meal diets for pigs)  
 IT 83-86-3 7723-14-0, Phosphorus, biological studies 37341-58-5,  
 Phytase  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (phytate phosphorus hydrolysis by microbial phytase in  
 corn-soybean meal diets for pigs)

L19 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1997:810239 CAPLUS  
 DOCUMENT NUMBER: 128:47653  
 TITLE: Effect of supplementary microbial phytase to a maize-soya diet on the availability of calcium, phosphorus, magnesium, and zinc. In vitro dialyzability in comparison with apparent absorption in growing rats  
 AUTHOR(S): Rimbach, G.; Walter, A.; Most, E.; Pallauf, Josef  
 CORPORATE SOURCE: Institute Animal Nutrition Nutrition Physiology,  
 Justus-Liebig-University, Giessen, D-35390, Germany  
 SOURCE: Journal of Animal Physiology and Animal Nutrition  
 (1997), 77(4/5), 198-206  
 CODEN: JAPNEF; ISSN: 0931-2439  
 PUBLISHER: Blackwell Wissenschafts-Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The effect of microbial phytase (0, 250, 500, 1000, 2000 PU/kg diet) to a maize-soya diet (5.0 g Ca, 3.0 g P, 1.2 g Mg, 24 mg Zn per kg diet) was studied on the availability of Ca, P, Mg, and Zn in vitro and in vivo. In vitro availability tests were carried out after simulated peptic

and pancreatic digestion using an equil. dialysis system. Absorption of Ca, P, Mg, and Zn was measured in growing albino rats. The supplementation of **microbial** phytase improved Ca, P, Mg, and Zn dialysability in vitro. Supplementation of **microbial** phytase resulted in a dose-dependent increase of apparent P and Zn absorption, but the response of **microbial** phytase to the availability of P and Zn was higher in vitro than in vivo.

IT 83-86-3, Phytic acid

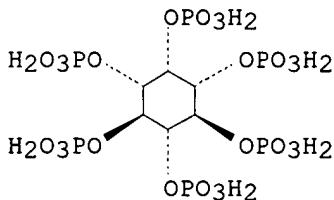
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Corn

Diet

Soybean (*Glycine max*)

(effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)

IT 37341-58-5, Phytase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)

IT 83-86-3, Phytic acid 7439-95-4, Magnesium, biological studies

7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)

L19 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:162319 CAPLUS

DOCUMENT NUMBER: 120:162319

TITLE: Supplemental **microbial** phytase improves utilization of phytate **phosphorus** and other minerals by young pigs

AUTHOR(S): Lei, Xingen

CORPORATE SOURCE: Michigan State Univ., East Lansing, MI, USA

SOURCE: (1992) 179 pp. Avail.: Univ. Microfilms Int., Order No. DA9326732

From: Diss. Abstr. Int. B 1993, 54(5), 2289

DOCUMENT TYPE: Dissertation

LANGUAGE: English

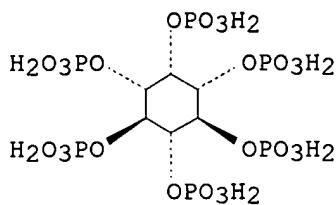
AB Unavailable

IT 83-86-3, Phytic acid

RL: BIOL (Biological study)

(utilization of phosphorus of, by pigs, dietary phytase improvement of)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT Swine  
(feeding expt. on, with phytase, phosphorus and other minerals utilization improvement by)  
IT Mineral elements  
RL: PROC (Process)  
(utilization of, by pigs, dietary phytase improvement of)  
IT Feeding experiment  
(with phytase, on pigs, phosphorus and other minerals utilization improvement by)  
IT 37341-58-5, Phytase  
RL: BIOL (Biological study)  
(feeding expt. with, on pigs, phosphorus and other minerals utilization improvement by)  
IT 83-86-3, Phytic acid  
RL: BIOL (Biological study)  
(utilization of phosphorus of, by pigs, dietary phytase improvement of)  
IT 7723-14-0, Phosphorus, biological studies  
RL: BIOL (Biological study)  
(utilization of phytate, by pigs, dietary phytase improvement of)

L19 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:53507 CAPLUS

DOCUMENT NUMBER: 120:53507

TITLE: Supplementing corn-soybean meal diets with microbial phytase maximizes phytate phosphorus utilization by weanling pigs

AUTHOR(S): Lei, X. G.; Ku, P. K.; Miller, E. R.; Yokoyama, M. T.; Ullrey, D. E.

CORPORATE SOURCE: Dep. Anim. Sci., Michigan State Univ., East Lansing, MI, 48824, USA

SOURCE: Journal of Animal Science (Savoy, IL, United States) (1993), 71(12), 3368-75

CODEN: JANSAG; ISSN: 0021-8812

DOCUMENT TYPE: Journal

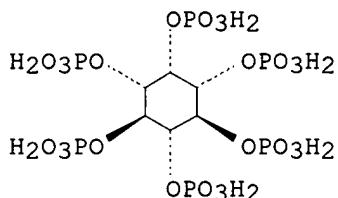
LANGUAGE: English

AB Two expts. were conducted with crossbred weanling pigs to det. the optimal dietary supplement of *Aspergillus niger* phytase activity to a low-P, corn-soybean meal basal diet (BD). In Exp. 1, 50 pigs (7.61 +- .56 kg BW) received the BD supplemented with 750, 1050, 1250, or 1350 phytase units (PU)/g, or 0.21% P as mono-dibasic calcium phosphate (MDCaP) for 4 wk. In Exp. 2, 12 pigs (6.39 +- .74 kg BW) were individually housed in metab. cages and received BD, BD plus the optimal phytase activity (1200 PU/g), or BD plus 0.21% P as MDCaP for 2 wk. In Exp. 1 addns. of phytase > 1050 PU/g of BD did not improve ADG, ADFI, gain/feed, or plasma AP activity. Quadratic relationships between dietary phytase activity and these measures were found and their stationary points were at approx. 1200 PU/g of BD. Estd. max. responses of these measures in pigs fed phytase

were .gtoreq. 90% compared with MDCaP. Pigs fed 1250 PU/g of BD maintained normal plasma P and Ca concns. In Exp. 2, pigs that received 1200 PU/g of BD utilized dietary P more effectively than pigs fed the BD or the BD plus MDCaP. Although they consumed 44% less P per day, these pigs retained only 7% less P than pigs that received MDCaP. One thousand units of phytase activity supported retention of 1.1 mg of P from the BD, and this level of phytase supplementation was equiv. in effect to 0.91 mg of P from MDCaP. Supplements of *A. niger* phytase at 1200 PU/g of BD for weanling pigs seemed to maximize utilization of phytate-P and obviate the need for almost all of an inorg. P addn.

IT 83-86-3, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Blood plasma  
 (phosphorus utilization indexes of, of pigs, dietary phytase improvement of)  
 IT Swine  
 (phytate phosphorus utilization by, dietary phytase improvement of)  
 IT 7440-70-2, Calcium, biological studies  
 RL: BIOL (Biological study)  
 (balance of, in pigs, dietary phytase effect on)  
 IT 7440-66-6, Zinc, biological studies  
 RL: BIOL (Biological study)  
 (of blood plasma of pigs, dietary phytase effect on)  
 IT 7723-14-0, Phosphorus, biological studies  
 RL: BIOL (Biological study)  
 (of phytate, pigs utilization of, dietary phytase improvement of)  
 IT 37341-58-5, Phytase  
 RL: BIOL (Biological study)  
 (phytate phosphorus utilization by pigs improvement by dietary)  
 IT 83-86-3, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)

L19 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1994:53506 CAPLUS  
 DOCUMENT NUMBER: 120:53506  
 TITLE: Supplementing corn-soybean meal diets with microbial phytase linearly improves phytate phosphorus utilization by weanling pigs  
 AUTHOR(S): Lei, X. G.; Ku, P. K.; Miller, E. R.; Yokoyama, M. T.  
 CORPORATE SOURCE: Dep. Anim. Sci., Michigan State Univ., East Lansing, MI, 48824, USA  
 SOURCE: Journal of Animal Science (Savoy, IL, United States) (1993), 71(12), 3359-67  
 CODEN: JANSAG; ISSN: 0021-8812  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Two expts. were conducted with weanling pigs to det. the effectiveness of a dietary supplement of *Aspergillus niger* phytase in improving the availability of phytate-P in corn-soybean meal diets without supplemental inorg. P. Expt. 1 consisted of two P and Ca balance trials and two feeding trials. Twelve pigs (8.18 .+- .44 kg BW) were housed individually in stainless steel metab. cages. Six pigs received 750 phytase units (PU)/g of basal diet and the other six pigs received the basal diet without supplemental phytase as control. In Exp. 2, 96 pigs (8.81 .+- .75 kg BW) were allotted to 16 partially slotted floor pens and their basal diets were supplemented with either 0, 250, 500, or 750 PU/g for 4 wk. Individual pig wts. and pen feed consumption were measured weekly. Blood samples were taken from all pigs at the end of each trial in Exp. 1 and from three pigs per pen weekly in Exp. 2 to measure serum (plasma) inorg. P (P) and Ca concns. and alk. phosphatase (AP) activities. The results of Exp. 1 indicated that dietary phytase increased P retention by 50% and decreased fecal P excretion by 42%. Pigs that received dietary phytase had serum P and Ca concns. and serum AP activities that were nearly normal, whereas control pigs had values indicative of a moderate P deficiency. Favorable effects of phytase disappeared when the phytase was removed from the diet. The results of Exp. 2 indicated a linear increase in plasma P, ADG, and ADFI with increased dietary phytase activity. Plasma AP activity decreased linearly with increased dietary phytase activity up to 500 PU/g of diet. Gain/feed and plasma Ca concn. seemed to be unaffected by dietary phytase activity. In conclusion, supplements of *Aspergillus niger* phytase up to 750 PU/g of feed in corn-soybean meal diets of weanling pigs resulted in a linear improvement in utilization of phytate-P.

IT 83-86-3, Phytic acid

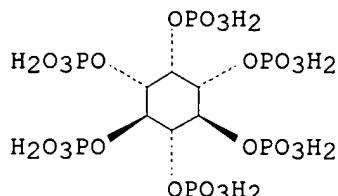
RL: BIOL (Biological study)

(pigs utilization of phosphorus of, dietary phytase improvement of)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Blood serum

(phosphorus utilization indexes of, of pigs, dietary phytase improvement of)

IT Swine

(phytate phosphorus utilization by, dietary phytase improvement of)

IT 7440-70-2, Calcium, biological studies 9001-78-9, Alk. phosphatase

RL: BIOL (Biological study)

(of blood serum of pigs, dietary phytase effect on)

IT 37341-58-5, Phytase

RL: BIOL (Biological study)

(phytate phosphorus utilization by pigs improvement by dietary)

IT 83-86-3, Phytic acid

RL: BIOL (Biological study)

(pigs utilization of phosphorus of, dietary phytase improvement of)

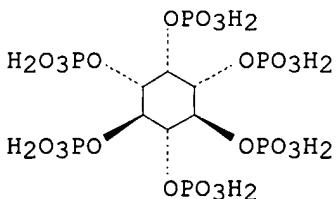
IT 7723-14-0, Phosphorus, biological studies

RL: BIOL (Biological study)

(utilization of phytate, by pigs, dietary phytase improvement of)

L19 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1992:447144 CAPLUS  
 DOCUMENT NUMBER: 117:47144  
 TITLE: Comparative effects of **microbial phytase** and  
       inorganic **phosphorus** on performance and on  
       retentions of **phosphorus**, calcium, and crude  
       ash in broilers  
 AUTHOR(S): Schoener, F. J.; Hoppe, P. P.; Schwarz, G.  
 CORPORATE SOURCE: Tierernaehrungsstn., BASF A.-G., Offenbach an der  
                   Queich, W-6745, Germany  
 SOURCE: Journal of Animal Physiology and Animal Nutrition  
                   (1991), 66(5), 248-55  
 CODEN: JAPNEF; ISSN: 0931-2439  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 AB The effects of graded feed supplements of **microbial phytase** (I),  
       inorg. P, and a combination of Ca and P on broiler performance, whole-body  
       retention of ash, Ca and P and on phallanx ash were studied. A  
       maize-soybean meal ration contg. 2.3, 1, 4.5, and 6 g/kg I, P (from  
       CaH4(PO4)2), total P, and Ca, resp., was used. Supplements of 200-800  
       IU/kg of I, 0.4-1.2 g/kg of P, and 0.4-1.2 g/kg of Ca + 0.4-1.2 g/kg of P  
       improved wt. gains (by increasing feed intakes but not conversions) and  
       linearly increased ash, Ca, and P retention. Similar supplements of Ca  
       alone had no effect. Linear regression anal. of I and P addns. and P  
       retention showed 700 IU of I equiv. to 1.0 g of P. Phallanx ash also  
       linearly correlated with P retention, indicating it would be a useful  
       indicator of the latter.  
 IT 83-86-3, Phytic acid  
     RL: BIOL (Biological study)  
       (chicken utilization of phosphorus of, phytase supplementation  
       improvement of retention and)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT Chicken  
       (feeding expt. on broiler chicks, with phytase and phosphorus,  
       phosphorus retention and utilization improvement in relation to)  
 IT Feeding experiment  
       (with phytase and phosphorus, on broiler chicks, phosphorus retention  
       and utilization improvement in relation to)  
 IT 7440-70-2, Calcium, biological studies  
     RL: BIOL (Biological study)  
       (chicken utilization of feed, phytase and phosphorus supplementation  
       improvement of)  
 IT 83-86-3, Phytic acid  
     RL: BIOL (Biological study)  
       (chicken utilization of phosphorus of, phytase supplementation  
       improvement of retention and)  
 IT 7723-14-0, Phosphorus, biological studies  
     RL: BIOL (Biological study)  
       (chicken utilization of phytate, in feed, phytase supplementation)

improvement of retention and)  
IT 37341-58-5, Phytase  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(feeding expt. with, on broiler chicks, phosphorus retention and utilization improvement in relation to)

L19 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1990:570809 CAPLUS  
DOCUMENT NUMBER: 113:170809  
TITLE: Improvement of phosphorus availability by microbial phytase in broilers and pigs  
AUTHOR(S): Simons, P. C. M.; Versteegh, H. A. J.; Jongbloed, A. W.; Kemme, P. A.; Slump, P.; Bos, K. D.; Wolters, M. G. E.; Beudeker, R. F.; Verschoor, G. J.  
CORPORATE SOURCE: Spelderholt Cent. Poult. Res. Inf. Serv., Beekbergen, 7361 DA, Neth.  
SOURCE: British Journal of Nutrition (1990), 64(2), 525-40  
CODEN: BJNUAV; ISSN: 0007-1145  
DOCUMENT TYPE: Journal  
LANGUAGE: English

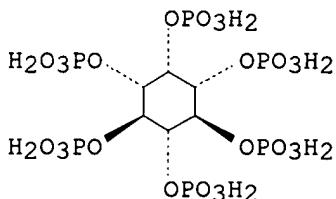
AB Techniques were developed to produce **microbial** phytase for addn. to diets for simple-stomached animals, with the aim to improve P availability from phytate-P in plant sources. The activity of the crude **microbial** phytase showed pH optima at pH 5.5 and 2.5. The enzyme degraded phytate in vitro in soybean meal, corn, and a liq. compd. feed for pigs. When **microbial** phytase was added to low-P diets for broilers, the availability of P increased >60% and the amt. of P in the droppings decreased by 50%. The growth rate and feed conversion ratio on the low-P diets contg. **microbial** phytase were comparable to or even better than those obtained on control diets. Addn. of **microbial** phytase to diets for growing pigs increased the apparent absorbability of P by 24%. The amt. of P in the feces was 35% lower.

IT 83-86-3  
RL: BIOL (Biological study)  
(phosphorus availability from, to broilers and pigs, phytase increase of)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Digestibility  
(of phytate phosphorus, by chicken and pigs, phytase treatment effect on)  
IT Corn  
Soybean meal  
(phytate phosphorus availability to chickens and pigs from phytase treatment of)  
IT Chicken  
Swine  
(phytate phosphorus availability to, from phytase-treated feed)  
IT Feeding experiment

(with feeds treated with **microbial** phytase, on chicken and pigs)

IT Feed  
 (conc., phytate phosphorus availability to chickens and pigs from phytase treatment of)

IT 7723-14-0, Phosphorus, biological studies  
 RL: BIOL (Biological study)  
 (availability of, from phytate to broilers and pigs, **microbial** phytase increase of)

IT 37341-58-5, Phytase  
 RL: BIOL (Biological study)  
 (phosphorus availability from feed phytate increase by)

IT **83-86-3**  
 RL: BIOL (Biological study)  
 (phosphorus availability from, to broilers and pigs, phytase increase of)

L19 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1987:533003 CAPLUS  
 DOCUMENT NUMBER: 107:133003  
 TITLE: Liquid **bactericide** for foods and food processing machines or utensils, employing a synergistic mixture of ethyl alcohol, an organic acid and **phosphoric** acid  
 INVENTOR(S): Ueno, Ryuzo; Kanayama, Tatsuo; Fujita, Yatsuka; Yamamoto, Munemitsu  
 PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan  
 SOURCE: U.S., 17 pp. Cont.-in-part of U. S. Ser. No. 305,845, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4647458	A	19870303	US 1984-581366	19840214
PRIORITY APPLN. INFO.:			US 1981-305845	19810925

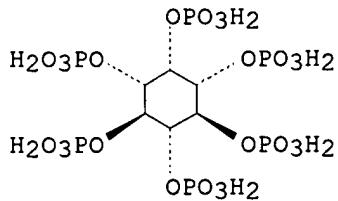
AB A liq. **bactericide** for foods and food processing machines or utensils comprises as active ingredients 98.0-2.3% (wt./vol.) of EtOH, 1.0-96.7% of an org. acid selected from the group consisting of lactic acid, acetic acid, citric acid, tartaric acid, gluconic acid, malic acid, ascorbic acid and phytic acid, and 1.0-96.7% (wt./vol.) of H<sub>3</sub>PO<sub>4</sub>, said **bactericide** being capable of sterilizing within 30 s when used in an aq. soln., such that the concn. of active ingredients in soln. consists of 14-18 (wt./vol.) EtOH, 13.0-0.3% org. acid, and 0.7-0.03% H<sub>3</sub>PO<sub>4</sub>. A kamaboko-like crab cake product which is highly susceptible to coliforms was effectively sterilized by concns. of EtOH, lactic acid, and H<sub>3</sub>PO<sub>4</sub> of .gt;req.1.85, 3.085, and 0.065% in the aq. soln.

IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (**bactericides** contg. ethanol and phosphoric acid and, for food industry)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT Carboxylic acids, biological studies  
 RL: BIOL (Biological study)  
 (bactericides contg. ethanol and phosphoric acid and, for food industry)
- IT Cooking utensils  
 Food  
 (bactericides for, ethanol and carboxylic acids and phosphoric acid in)
- IT Bactericides, Disinfectants, and Antiseptics  
 (ethanol and carboxylic acids and phosphoric acid in, for food industry)
- IT Apparatus  
 (food-processing, bactericides for, ethanol and carboxylic acids and phosphoric acid in)
- IT Escherichia coli  
 Lactobacillus vulgaricus  
 (inhibition of, on food and food processing equipment, with bactericides contg. ethanol and lactic and phosphoric acids)
- IT Food  
 (industry, bactericides for, ethanol and carboxylic acids and phosphoric acid in)
- IT Bacteria  
 (lactic acid, inhibition of, on food and food processing equipment, with bactericides contg. ethanol and lactic and phosphoric acids)
- IT 64-17-5, Ethanol, biological studies  
 RL: BIOL (Biological study)  
 (bactericides contg. carboxylic acids and phosphoric acid and, for food industry)
- IT 7664-38-2, Phosphoric acid, biological studies  
 RL: BIOL (Biological study)  
 (bactericides contg. ethanol and carboxylic acids and, for food industry)
- IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 64-19-7, Acetic acid, biological studies 77-92-9, Citric acid, biological studies 83-86-3, Phytic acid 87-69-4, Tartaric acid, biological studies 526-95-4, Gluconic acid 6915-15-7, Malic acid  
 RL: BIOL (Biological study)  
 (bactericides contg. ethanol and phosphoric acid and, for food industry)

L19 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1983:609936 CAPLUS  
 DOCUMENT NUMBER: 99:209936  
 TITLE: Role of an ectomycorrhiza "Pisolithus tinctorius-Pinus caribaea" and a rhizosphere bacterium in the mobilization of phosphorus from insoluble mineral or organic phosphates  
 AUTHOR(S): Chakly, M.; Berthelin, J.  
 CORPORATE SOURCE: Cent. Pedol. Biol., CNRS, Vandoeuvre-les-Nancy, 54501, Fr.  
 SOURCE: Colloques - Institut National de la Recherche

Agronomique (1982), 13(Mycorrhizes, Partie Integr.  
Plante: Biol. Perspect. Util.), 215-20  
CODEN: COLIEZ; ISSN: 0293-1915

DOCUMENT TYPE: Journal  
LANGUAGE: French

AB Adding 1.permill. phytin to ferralitic soil from Guyana stimulated the growth of coralloid ectomycorrhizas of *P. tinctorius* on *P. caribaea* seedlings more than 1.permill. Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> stimulated the development of dichotomous mycorrhizas. The mycorrhizas stimulated pine growth on the phosphate more than on phytin. However, inoculation with the mycorrhiza plus a **bacterium** isolated from the pine rhizosphere and solubilizing di- and tri-Ca phosphates in vitro, stimulated the growth on phytin more than on the phosphate. For both P sources, the combined inoculation was more effective than either microorganism alone in the stimulation of pine growth and P uptake and translocation to the aerial parts. The effectiveness of the combined inoculation was synergistic.

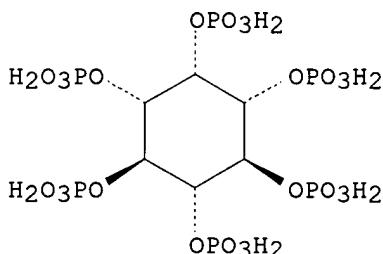
IT 3615-82-5

RL: BIOL (Biological study)  
(pine growth on phosphorus from, ectomycorrhiza plus  
phosphate-solubilizing **bacteria** stimulation of)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

- IT Plant growth and development  
(by pine, ectomycorrhiza plus phosphate-solubilizing **bacteria** effect on)
- IT Ecology  
(ectomycorrhiza-phosphate-solubilizing-**bacteria** community,  
pine phosphorus nutrition and growth stimulation by)
- IT Root absorption  
Translocation  
(of phosphorus, by pine, ectomycorrhiza plus phosphate-solubilizing  
**bacteria** effect on)
- IT *Pisolithus tinctorius*  
(phosphate-solubilizing **bacteria** plus effect on phosphorus  
nutrition and growth of)
- IT Soils  
(phosphorus of, availability of, to pine, ectomycorrhiza plus  
phosphate-solubilizing **bacteria** effect on)

IT Plant nutrition  
(phosphorus, by pine, ectomycorrhiza plus phosphate-solubilizing bacteria effect on)

IT Mycorrhiza  
(ecto-, pine, phosphate-solubilizing bacteria plus effect on phosphorus nutrition and growth of)

IT Soils  
(rhizospheric, phosphorus-solubilizing bacteria of, pine growth and phosphorus nutrition response to ectomycorrhiza plus)

IT Bacteria  
(soil, phosphate-solubilizing, ectomycorrhiza effect on pine growth and phosphorus nutrition in relation to)

IT Pine  
(P. caribaea, phosphorus nutrition and growth of, ectomycorrhiza plus phosphate-solubilizing bacteria effect on)

IT 3615-82-5 7758-87-4  
RL: BIOL (Biological study)  
(pine growth on phosphorus from, ectomycorrhiza plus phosphate-solubilizing bacteria stimulation of)

IT 7723-14-0, biological studies  
RL: BIOL (Biological study)  
(soil, availability of, to pine, ectomycorrhiza plus phosphate-solubilizing bacteria stimulation of)

L19 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:516858 CAPLUS

DOCUMENT NUMBER: 87:116858

TITLE: Efficiency of phosphate mobilizing bacteria on different phosphorus substrates in clay loamy soils

AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.; Hanafy, Ehsan A.

CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt

SOURCE: Egyptian Journal of Soil Science (1976), 16(1), 9-20  
CODEN: EJSSAF; ISSN: 0302-6701

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The most efficient 5 strains in releasing soluble and (or) available P from different org. and inorg. insoluble phosphate substrates, isolated from the rhizosphere of wheat and broad bean were selected for this investigation. The efficiency of the most efficient 5 strains in hydrolyzing all P substrates namely, inorg. phosphate, RNA, phytin [3615-82-5] and lecithin in sterile and nonsterile soil was studied. The selected isolates varied in their efficiency to solubilize inorg. insoluble phosphate, RNA, phytin or lecithin. Values of soluble and (or) available P released from tested P substrates in nonsterile soil were generally higher than those released in sterile soil indicating that inoculation was more effective in the presence of mixed normal soil microbial flora than in their absence.

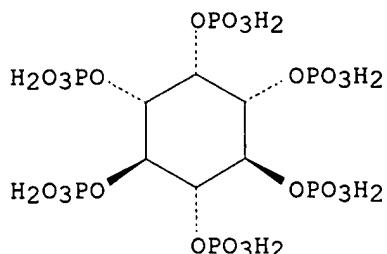
IT 3615-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by soil bacteria)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



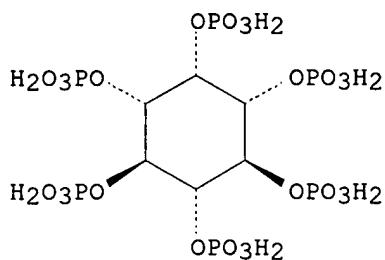
●x Ca

●x Mg

- IT Lecithins, biological studies  
 Phosphates, biological studies  
 Ribonucleic acids  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (decompn. of, by soil **bacteria**)
- IT Soils  
 (clay loam, phosphorus substrates **microbial** degrdn. in)
- IT **Bacteria**  
 (soil, phosphate-mobilizing, substrate degrdn. by)
- IT 3615-82-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (decompn. of, by soil **bacteria**)
- L19 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1977:498606 CAPLUS  
 DOCUMENT NUMBER: 87:98606  
 TITLE: Efficiency of phosphate mobilizing **bacteria**  
 on different **phosphorus** substrates in liquid  
 culture media  
 AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.;  
 Hanafy, Ehsan A.  
 CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt  
 SOURCE: Egyptian Journal of Botany (1975), 18(1-3), 101-14  
 CODEN: EGJBAY; ISSN: 0375-9237  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The efficiency of some selected strains of phosphate-dissolving  
**bacteria** isolated from the rhizosphere of broad bean and wheat, on  
 decomposing different forms of inorg. and org. P compds. namely, inorg.  
 insol. phosphate, RNA, phytin, and lecithin was detd. using the liq.  
 culture method. Quant. weekly detn. of water-sol. and available P showed  
 that selected organisms differed in decomposing inorg. insol. phosphate,  
 RNA, phytin and lecithin regardless of the source from which they had been  
 isolated. Values of available P released in all cases were generally  
 higher than those of water-sol. P, and this confirmed the efficiency of  
 the method of S. R. Olsen, et al (1954) for extg. available P released  
 from inorg. or org. phosphate substrates.
- IT 3615-82-5  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (metab. of, by phosphate-dissolving **bacteria**)
- RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

IT Phosphates, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metab. of, by **bacteria**)

IT Lecithins, biological studies

Ribonucleic acids

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metab. of, by phosphate-dissolving **bacteria**)

IT **Bacteria**

(phosphate-solubilizing, phosphorus compds. degrdn. by)

IT 7758-87-4

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metab. of, by **bacteria**)

IT **3615-82-5**

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metab. of, by phosphate-dissolving **bacteria**)

L19 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:532633 CAPLUS

DOCUMENT NUMBER: 81:132633

TITLE: **Phosphoribulokinase** and regulation of the  
size of a metabolic pool of ribulose 1,5-diphosphate  
in hydrogen **bacteria**

AUTHOR(S): Romanova, A. K.; Vedenina, I. Ya.

CORPORATE SOURCE: Inst. Mikrobiol., Moscow, USSR

SOURCE: Mikrobiologiya (1974), 43(2), 369-70

CODEN: MIKBA5; ISSN: 0026-3656

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB In crude exts. of **H bacteria**, the activity of phosphoribulokinase  
was detd. as the accumulation of alkali hydrolyzed P from ribulose  
1,5-diphosphate (I). The activity was detd. in the presence of ribose  
5-phosphate and was obsd. only in the absence of O. On the other hand, in  
exts. from **S bacteria**, Chlorella, and pea leaves, the

IT accumulation of I was obsd. under aerobic conditions. O regulates the metabolic pool of I in H **bacteria**.

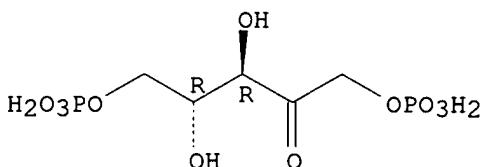
IT 2002-28-0

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, in hydrogen **bacteria**)

RN 2002-28-0 CAPLUS

CN erythro-2-Pentulose, 1,5-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **Bacteria**

(hydrogen, phosphoribulokinase and ribulose diphosphate metab. in)

IT 2002-28-0

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, in hydrogen **bacteria**)

IT 9030-60-8

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(of hydrogen **bacteria**)

L19 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:81460 CAPLUS

DOCUMENT NUMBER: 80:81460

TITLE: **Microbial flora and phosphorus**  
fractions in the soils of Egypt with special reference  
to phosphobacteria

AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.;  
Hanafy, E. A.

CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt

SOURCE: Agrokemia es Talajtan (1973), 22(3-4), 357-68

CODEN: AKTLAU; ISSN: 0002-1873

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB Egyptian soils contain considerable amts. of organisms capable of dissolving inorg. phosphate and decompg. RNA, phytin, lecithin, and phenolphthalein phosphate. The microflora content depends on soil texture, cultivation, fertility status, and other environmental conditions. Calcareous and alkali soils contain phenolphthalein phosphate- and lecithin-decompg. **bacteria**. Also the total, inorg., and org. P of the tested soils was high, that of sol. or available P was relatively low as a result of soil alky. Sol. inorg. P is transformed in these soils into Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> or even apatite. Thus plants needing P depend on the available P resulting from soil biol. activities.

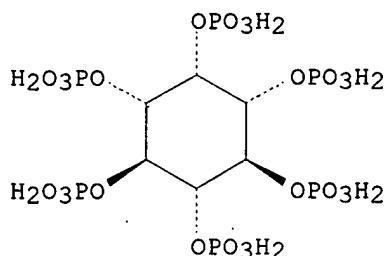
IT 3615-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by phosphate-mobilizing microorganisms in soil)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

- IT Lecithins, biological studies  
Ribonucleic acids  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by phosphate-mobilizing microorganisms in soil)
- IT Microorganism, soil  
(phosphate-mobilizing, in calcareous and alkali soils of Egypt)
- IT 2090-82-6 **3615-82-5**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by phosphate-mobilizing microorganisms in soil)
- IT 7723-14-0, biological studies  
RL: OCCU (Occurrence)  
(in soils, mobilization of available, by microorganisms)

=>

=> d his

(FILE 'HOME' ENTERED AT 15:38:34 ON 13 MAY 2003)

FILE 'CPLUS, MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

L1 153627 S ANTIMICROB? OR ANTIBACTER?  
L2 1795 S L1 AND PHOSPHOR?  
L3 54 S L1 AND PHOSPHOROUS  
L4 13 S L3 AND PHOSPHOR?/TI

FILE 'STNGUIDE' ENTERED AT 15:43:36 ON 13 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:49:01 ON 13 MAY 2003

L5 STRUCTURE uploaded  
L6 STRUCTURE uploaded  
L7 50 S L6  
L8 3173 S L6 FULL

FILE 'CPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003

L9 67 S L8 AND ( ANTIMICROB? OR ANTIBACTER?)  
L10 STRUCTURE uploaded

FILE 'REGISTRY' ENTERED AT 16:10:16 ON 13 MAY 2003

L11 0 S L10  
L12 1 S L10 FULL

FILE 'CPLUS' ENTERED AT 16:10:51 ON 13 MAY 2003

L13 1 S L12

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

L14 0 S L10 FULL  
L15 1314 S L6 FULL

FILE 'CPLUS' ENTERED AT 16:20:33 ON 13 MAY 2003

L16 716 S L8 AND (MICROBI? OR BACTER?)  
L17 694 S L16 NOT L9  
L18 62 S L17 AND PHOSPHOR?/TI  
L19 22 S L18 AND (BACTER?/TI OR MICROB?/TI)

=> s sanitiz? and phosphor?

1690 SANITIZ?  
593312 PHOSPHOR?  
L20 74 SANITIZ? AND PHOSPHOR?

=> d phosphor?/ti and l20

'PHOSPHOR?' MUST END IN '/Q', '/A', '/L', '/S' OR '/B'  
The saved name for a query (or structure or screen set) must end with '/Q'. The saved name for an answer set must end with '/A'. The saved name for an L# list must end with '/L'. SDI request names must end with '/S'. To see a list of all saved query, answer set,, and L# list names for this loginid, enter "DISPLAY SAVED" at an arrow prompt (=>). Enter "DISPLAY SAVED/S" to see a list of SDI request names. Enter "DISPLAY SAVED/B" to see a list of BATCH search requests.

=> s phosphor?/ti and l20

190496 PHOSPHOR?/TI  
L21 2 PHOSPHOR?/TI AND L20

=> d ibib abs 1-2 it

L21 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1983:3640 CAPLUS  
DOCUMENT NUMBER: 98:3640  
TITLE: Indirect food additives; adjuvants, production aids,  
and sanitizers; lubricants with incidental  
food contact; triphenyl phosphorothionate  
CORPORATE SOURCE: United States Food and Drug Administration, Rockville,  
MD, 20857, USA  
SOURCE: Federal Register (1982), 47(219), 51107-8, 12 Nov 1982  
CODEN: FEREAC; ISSN: 0097-6326  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB triphenyl phosphorothionate [597-82-0] May be used at  
.1toreq.0.5% by wt. in food industry lubricants as an antiwear-extreme  
pressure additive, under the Federal Food, Drug, and Cosmetic Act.  
IT Standards, legal and permissive  
(for tri-Ph phosphorothionate, of lubricating oils for food  
industry)  
IT Lubricating oil additives  
(extreme-pressure, tri-Ph phosphorothionate, for food  
industry, stds. for)  
IT Food  
(industry, tri-Ph phosphorothionate of lubricating oils for,  
stds. for)  
IT 597-82-0  
RL: BIOL (Biological study)  
(lubricating oil additive, for food industry, stds. for)

L21 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1959:125473 CAPLUS  
DOCUMENT NUMBER: 53:125473  
ORIGINAL REFERENCE NO.: 53:22570h-i,22571a-b  
TITLE: Virucidal activity of a new phosphoric  
acid-wetting agent (PAWA) sanitizer against  
bacteriophage of Streptococcus cremoris  
AUTHOR(S): Hays, Helen; Elliker, P. R.  
CORPORATE SOURCE: Oregon Agr. Expt. Sta., Corvallis  
SOURCE: J. Milk and Food Technol. (1959), 22, 109-11  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB PAWA is a new wetting agent consisting chiefly of orthophosphoric acid  
plus nonionic and anionic surface-active agents. A comparison was made  
under lab. conditions of the relative effectiveness of the new PAWA  
sanitizer and representative hypochlorites, quaternary ammonium  
compds. (QAC), and iodophor compds. in the destruction of bacteriophage of  
lactic streptococci. The effect of diln. and buffered hard water on the  
activity of the new sanitizing agent also was studied. Both  
NaOCl and Ca(OCl)2 in a concn. of 25 p.p.m. completely inactivated the  
phage of S. cremoris 144F during a 15-sec. exposure period. The iodophor  
compds. showed a slower rate of activity when used in a concn. of 25  
p.p.m. In distd. H2O a 60-sec. exposure period was required for complete  
destruction of the phage, and in buffered hard H2O the efficiency was  
greatly decreased. A concn. of 50 p.p.m. QAC was effective in a 15-sec.  
exposure period. The PAWA sanitizer was effective in concns. as  
low as 12.5 p.p.m. during a 15-sec. exposure period in distd. H2O, but in  
buffered hard H2O a concn. of 50 p.p.m. was required to inactivate the  
phage in 15 sec. The results suggest that this sanitizer when  
used in recommended concn. of 200 p.p.m. should provide an effective agent  
for destruction of bacteriophage on dairy equipment.  
IT Wetting agents  
(-phosphoric acid sanitizer effect on bacteriophage  
of Streptococcus cremoris in milk)

IT Dairy industry  
(bacteriophage control in, cleaning compns. in)  
IT Streptococcus cremoris  
(bacteriophage of, in milk, cleaning compn. effect on)  
IT Cleaning compositions  
(effect on bacteriophage of Streptococcus cremoris in milk)  
IT Bacteriophages  
(Streptococcus cremoris, in milk, cleaning compn. effect on)  
IT Phosphoric acid, vitamin B2 ester  
(-wetting agent **sanitizer**, Streptococcus cremoris  
bacteriophage and)  
IT Ammonium, 5-dodecynyltrimethyl-  
(effect on bacteriophage of Streptococcus cremoris)  
IT 7681-52-9, Sodium hypochlorite 7778-54-3, Calcium hypochlorite  
(effect on bacteriophage of Streptococcus cremoris)  
IT 7732-18-5, Water  
(hardness of, virucidal activity of H<sub>3</sub>PO<sub>4</sub>-wetting agent  
**sanitizer** and)

=> s sanit?/ti and 120  
5970 SANIT?/TI  
L22 51 SANIT?/TI AND L20

=> d ti 1-10

L22 ANSWER 1 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Pesticides; Tolerance exemptions for active and inert ingredients for use  
in antimicrobial formulations (food-contact surface **sanitizing**  
solutions)

L22 ANSWER 2 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Acid **sanitizing** and cleaning compositions containing protonated  
carboxylic acids for hard surfaces and containers

L22 ANSWER 3 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI A new concept in cleaning and **sanitation** of fermentation and  
storage vessels

L22 ANSWER 4 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Acidic aqueous chlorite teat dip with improved emollient providing shelf  
life, **sanitizing** capacity and tissue protection

L22 ANSWER 5 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Concentrated **sanitizing** compositions for cleaning food and food  
contact surfaces

L22 ANSWER 6 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing and **sanitizing** composition for **sanitary**  
appliances

L22 ANSWER 7 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Indirect food additives: adjuvants, production aids, and  
**sanitizers**

L22 ANSWER 8 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Effectiveness of **sanitizing** agents in inactivating Escherichia  
coli in Golden Delicious apples

L22 ANSWER 9 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Microbicidal and **sanitizing** soap compositions

L22 ANSWER 10 OF 51 CAPLUS COPYRIGHT 2003 ACS  
TI Sanitizing composition

=>  
Connection closed by remote host

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \*

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NEWS 3 Jun 03 New e-mail delivery for search results now available  
NEWS 4 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
NEWS 6 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 7 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 8 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
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NEWS 13 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 14 Nov 25 More calculated properties added to REGISTRY  
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NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN  
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NEWS 29 Mar 24 PATDPAFULL now available on STN  
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structures available in REGISTRY  
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NEWS 32 Apr 14 MEDLINE Reload  
NEWS 33 Apr 17 Polymer searching in REGISTRY enhanced  
NEWS 34 Apr 21 Indexing from 1947 to 1956 being added to records in CA/CAPLUS  
NEWS 35 Apr 21 New current-awareness alert (SDI) frequency in  
WPIDS/WPINDEX/WPIX  
NEWS 36 Apr 28 RDISCLOSURE now available on STN  
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added to PHAR  
  
NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT  
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003  
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